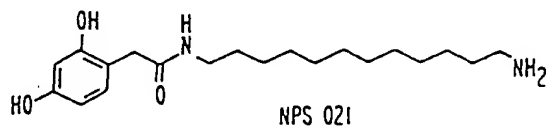
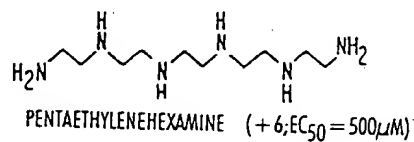
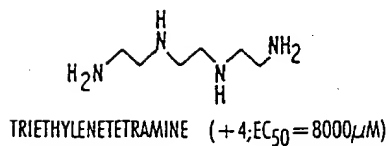
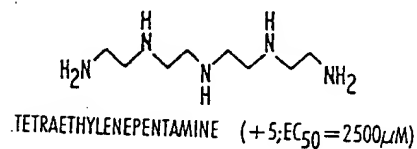
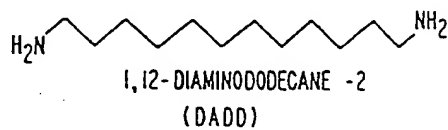
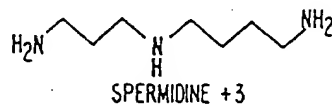
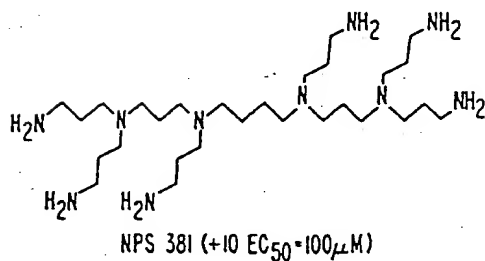
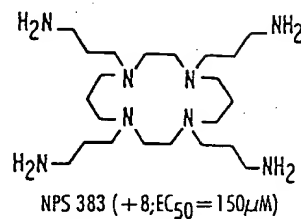
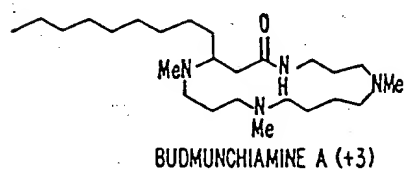
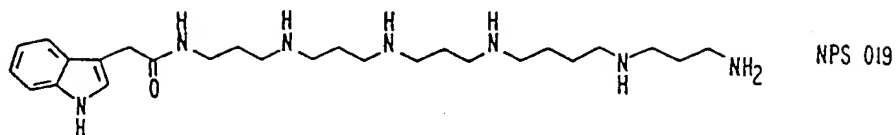
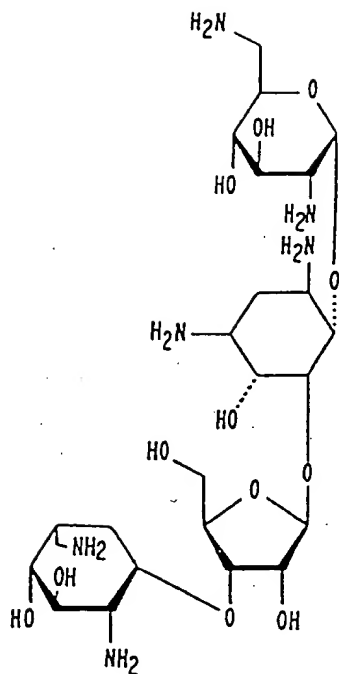


1/85

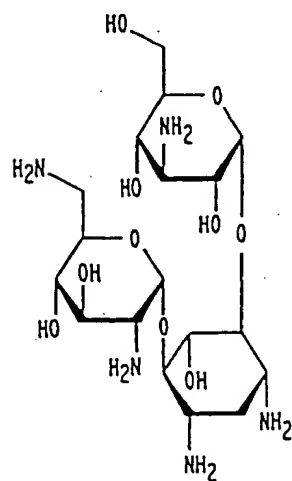
FIG. 1a.



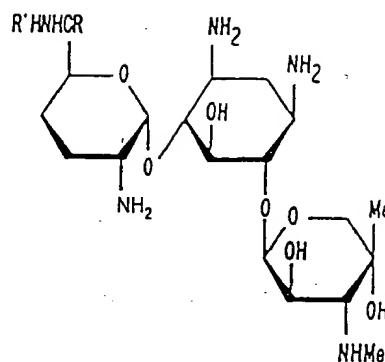
2/85



Neomycin B (+6)

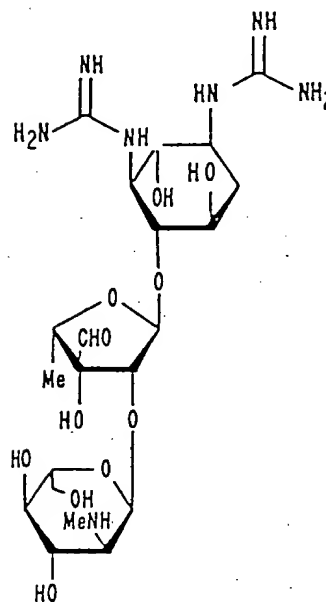


Bekanamycin (+5)



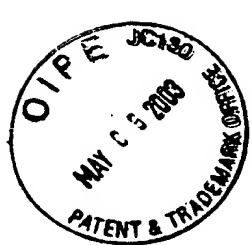
Gentamicin (Complex +5)

C1 R = R' = Me
C2 R = Me; R' = H
C1aR = R' = H

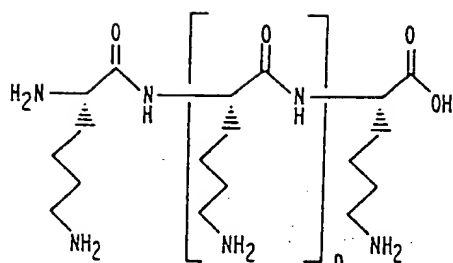


Streptomycin (+3)

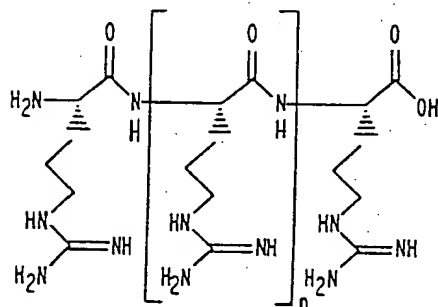
FIG. 1b



3/85



poly-Lys (27 kD) n= 210 +210
poly-Lys (14 kD) n=110 +110
poly-Lys (38 kD) n= 55 +55

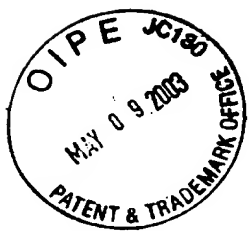


poly-Arg (100 kD) n=640 +640
poly-Arg (40 kD) n= 256 +256

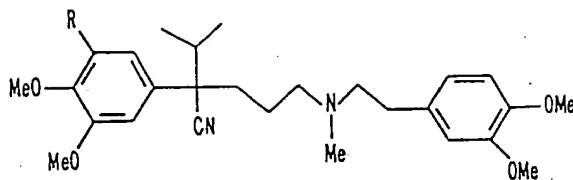
PROTAMINE +21

H N-Pro-Arg-Arg-Arg-Arg-Ser-Ser-Ser-Arg-Pro-Val-Arg-Arg-Arg-Arg-
Pro-Arg-Val-Ser-Arg-Arg-Arg-Arg-Arg-Gly-Gly-Arg-Arg-Arg-Arg-OH

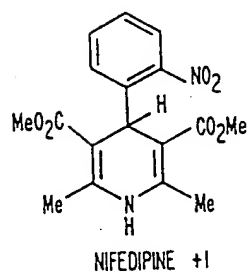
FIG. 1c.



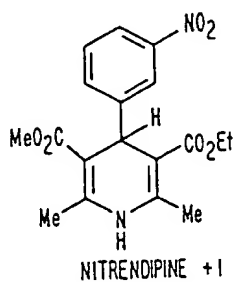
4/85



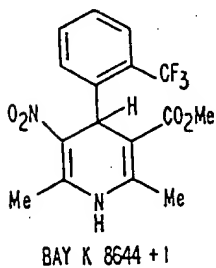
VERAPAMIL R=H +I
D-600 R=OMe +I



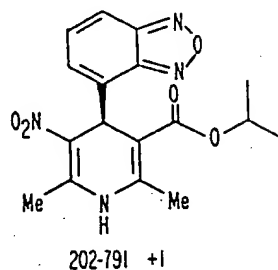
NIFEDIPINE +I



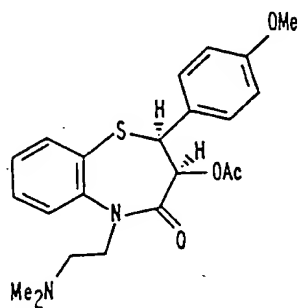
NITRENDIPINE +I



BAY K 8644 +I

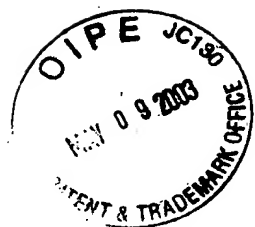


202-791 +I

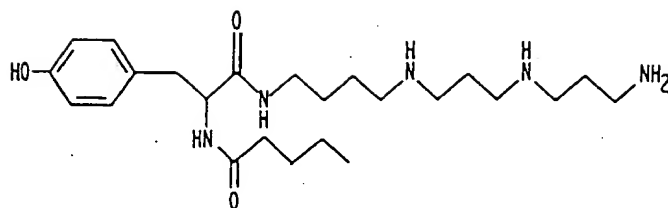


DILTIAZEM +I

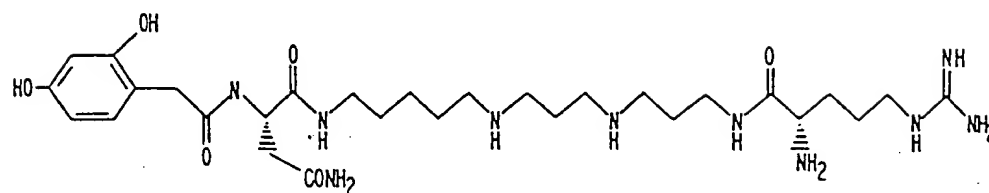
FIG. 1d.



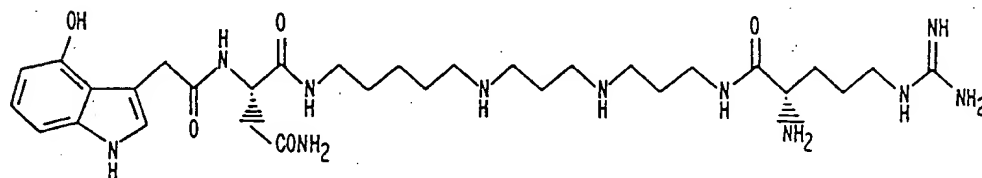
5/85



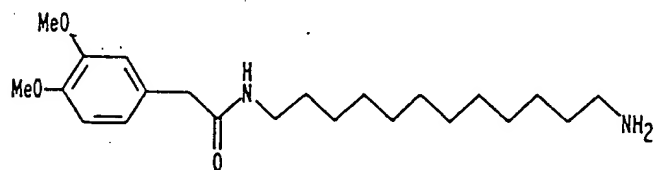
PHILANTHOTOXIN 433 +3



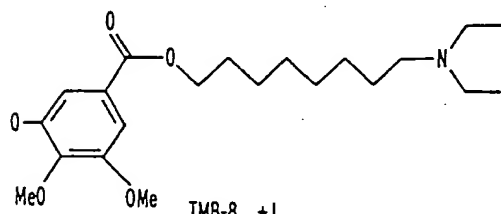
ARGIOTOXIN 636 +4



ARGIOTOXIN 659 +4



NPS 384



TMB-8 +1

FIG. 1e.



6/85

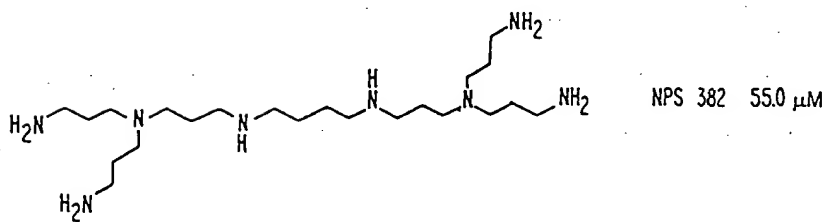
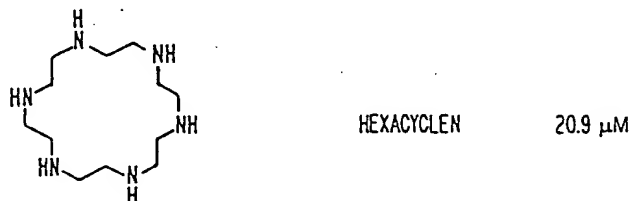
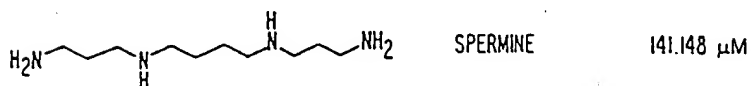
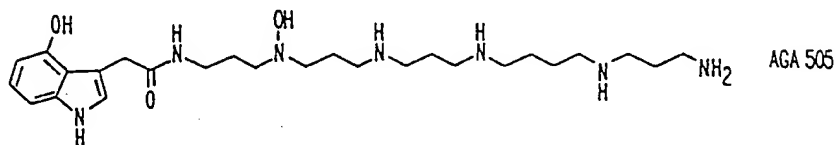
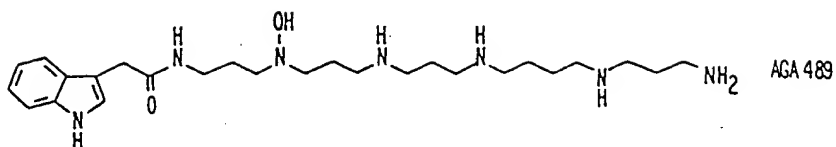


FIG. 1f.



7/85

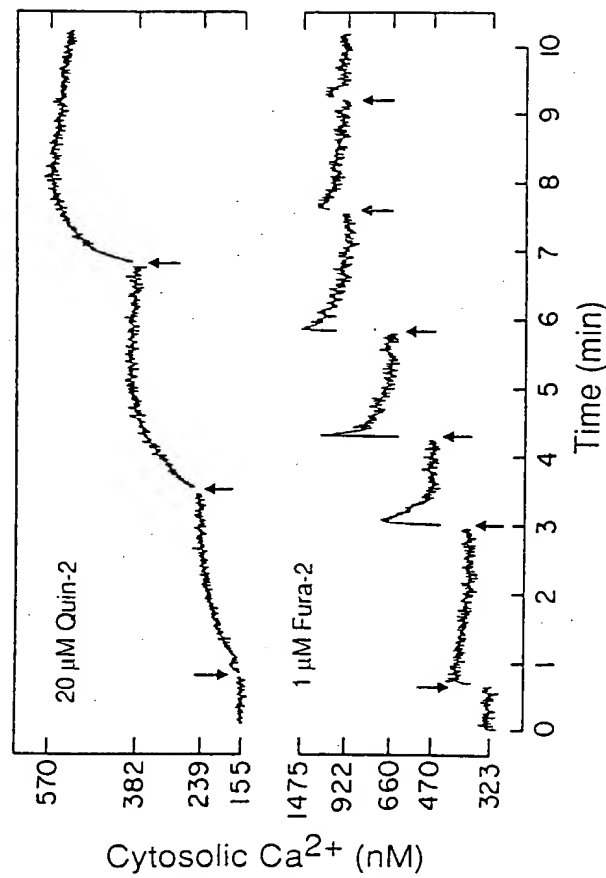


FIG. 2.



8/85

FIG. 3a.

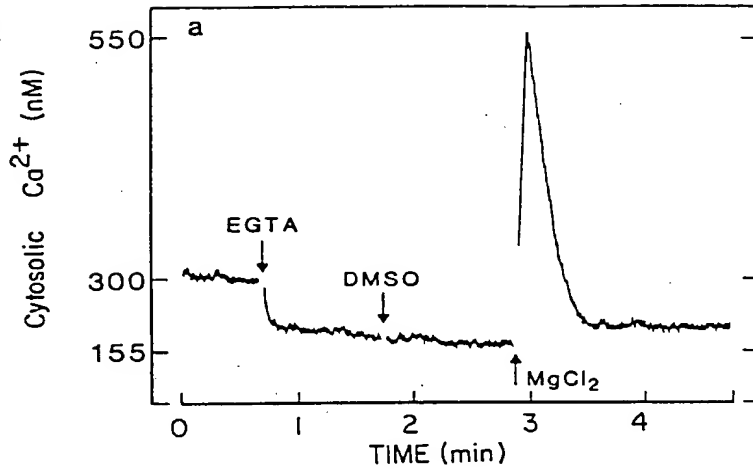


FIG. 3b.

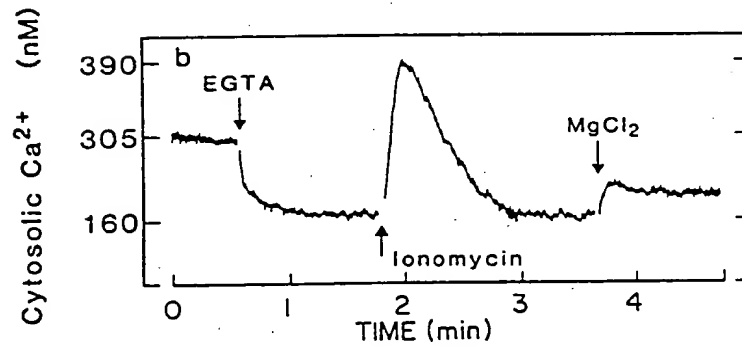
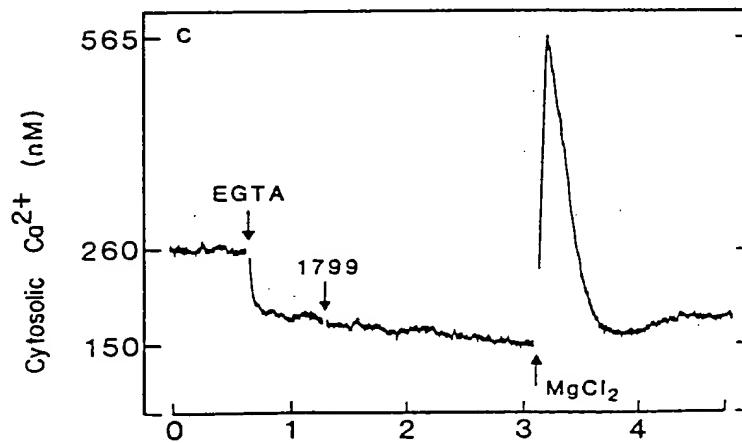


FIG. 3c.





9/85

FIG. 4a.

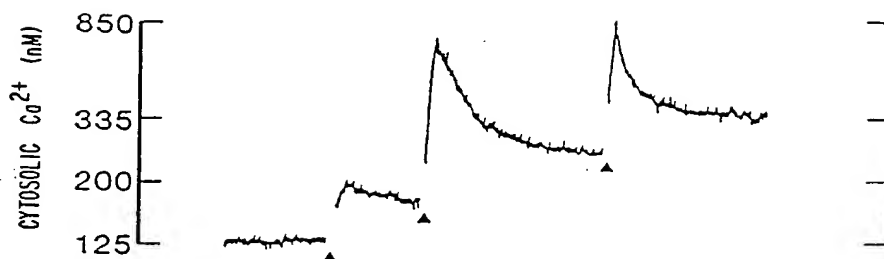


FIG. 4b.

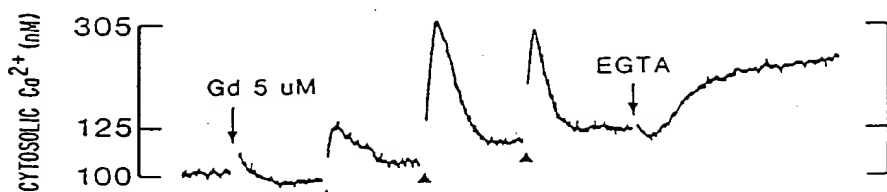
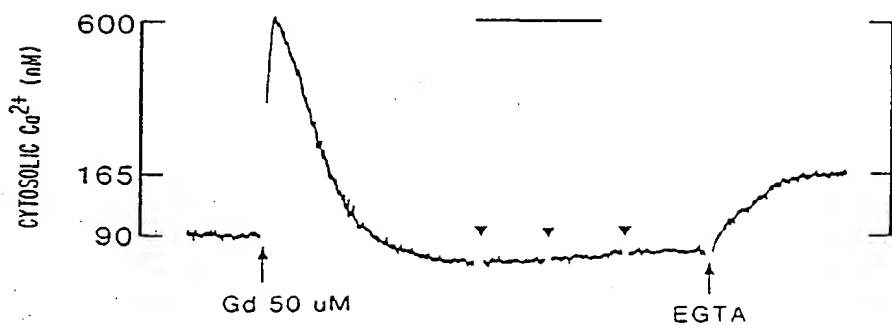


FIG. 4c.





10/85

FIG. 5c.

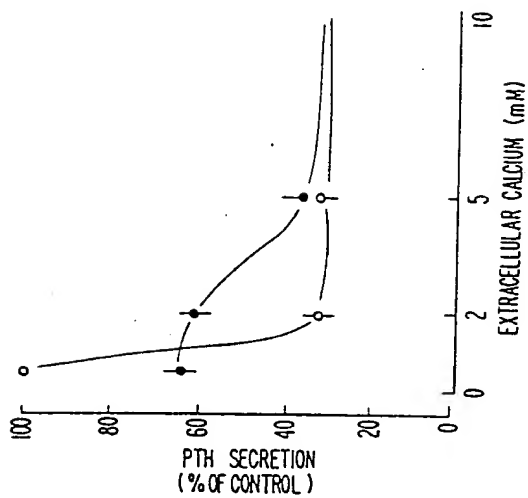


FIG. 5b.

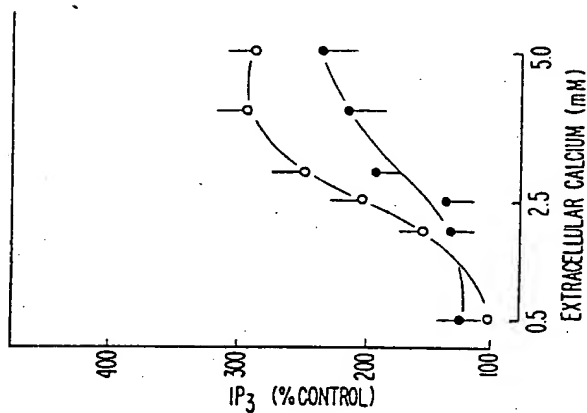
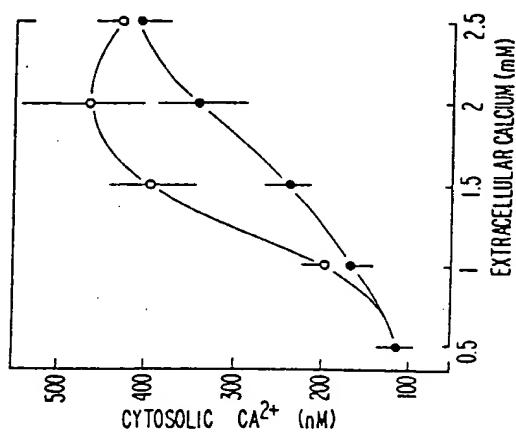
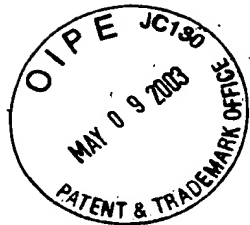


FIG. 5a.





11/85

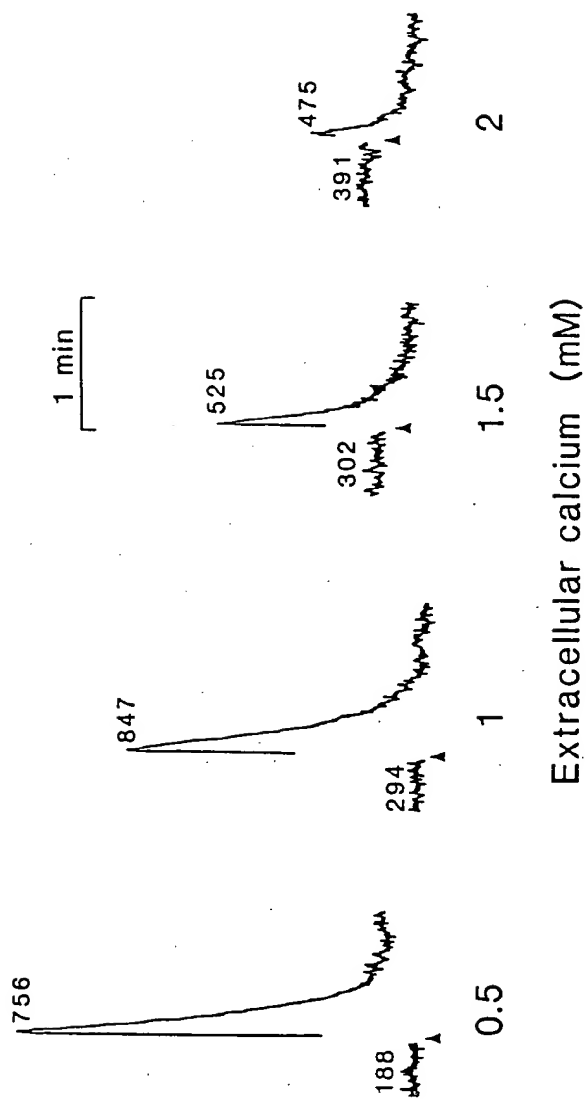


FIG. 6.



12/85

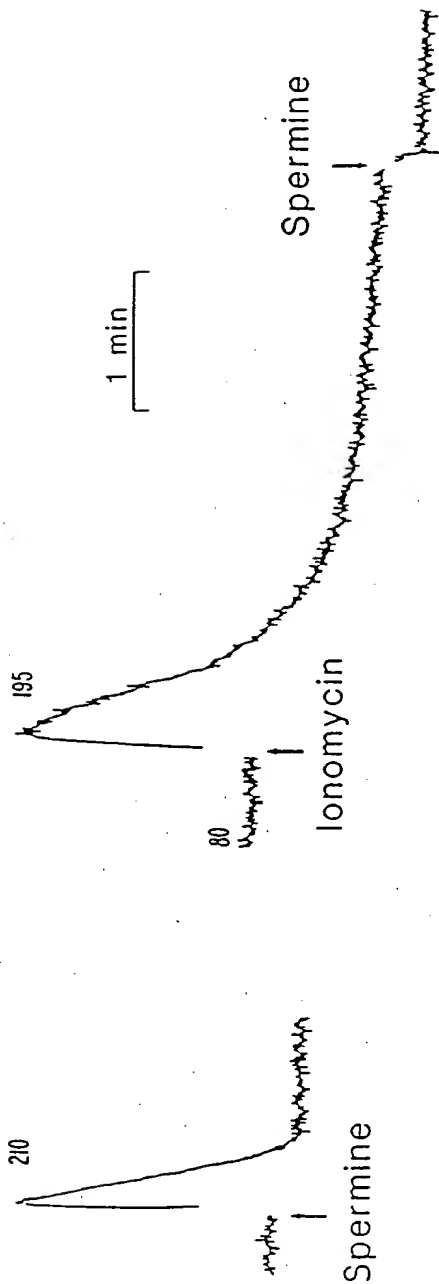


FIG. 7.

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13/85

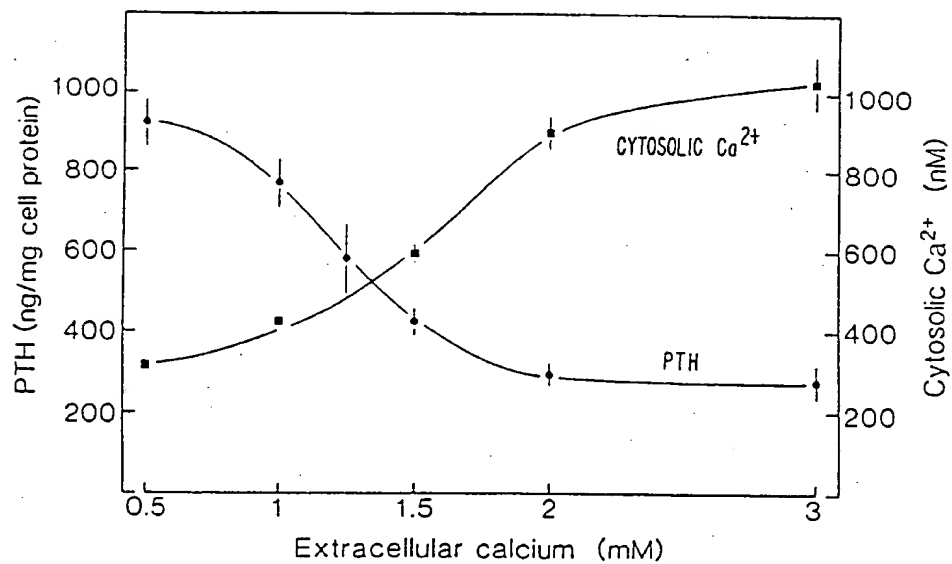
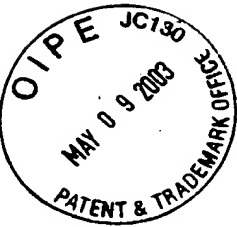


FIG. 8a.



14/85

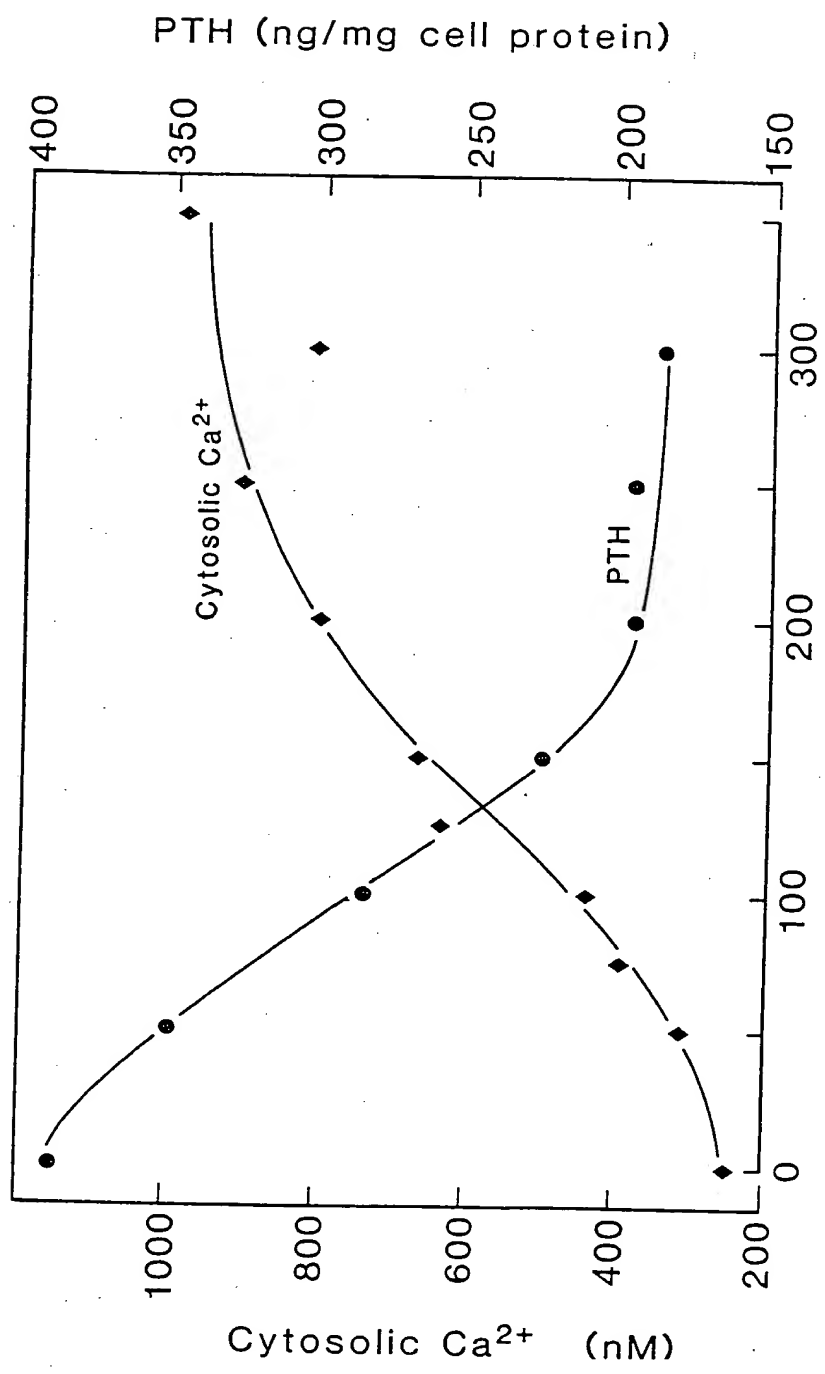


FIG. 8b.



15/85

FIG. 9a.

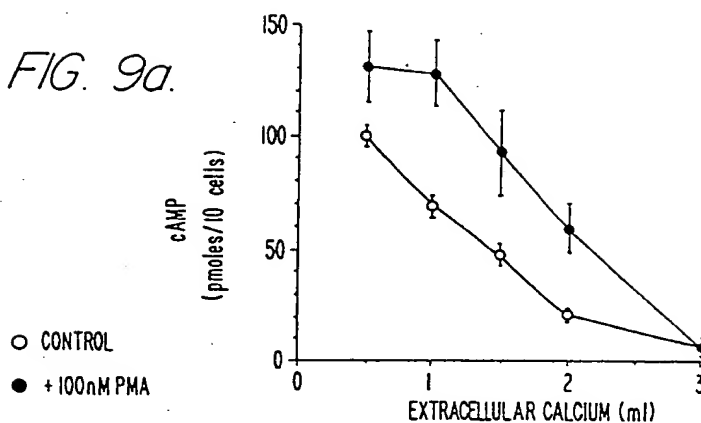


FIG. 9b.

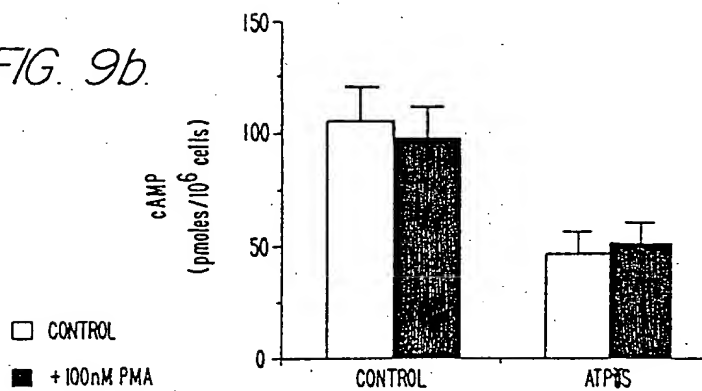
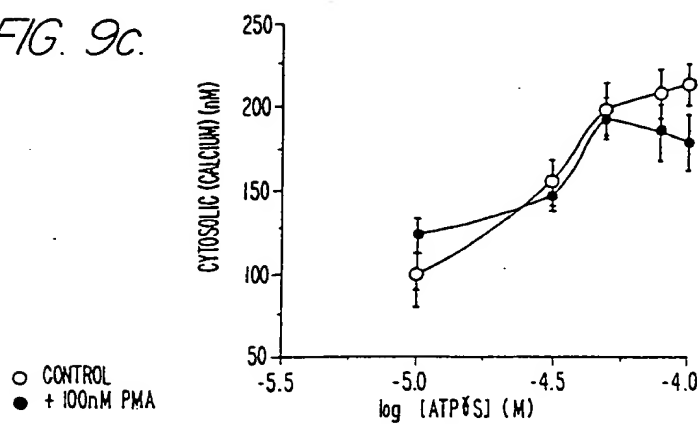


FIG. 9c.





16/85

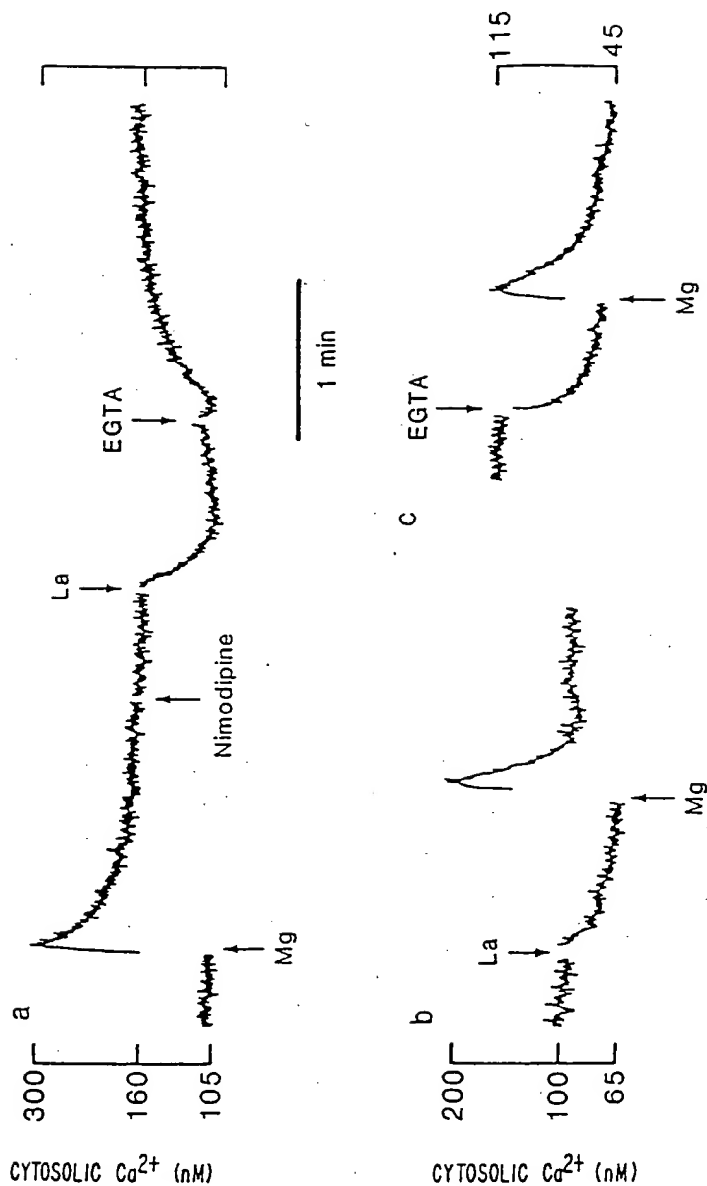


FIG. 10a.

FIG. 10b.

FIG. 10c.

07/0091 18/18/95
16/85



17/85

FIG. 11a. FIG. 11b. FIG. 11c. FIG. 11d.

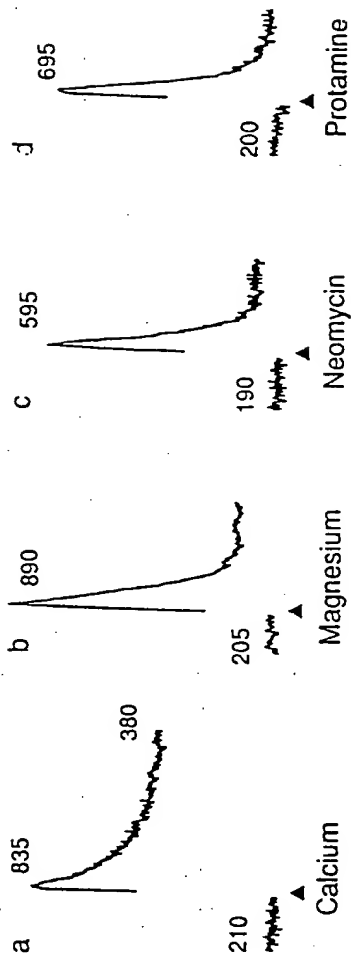
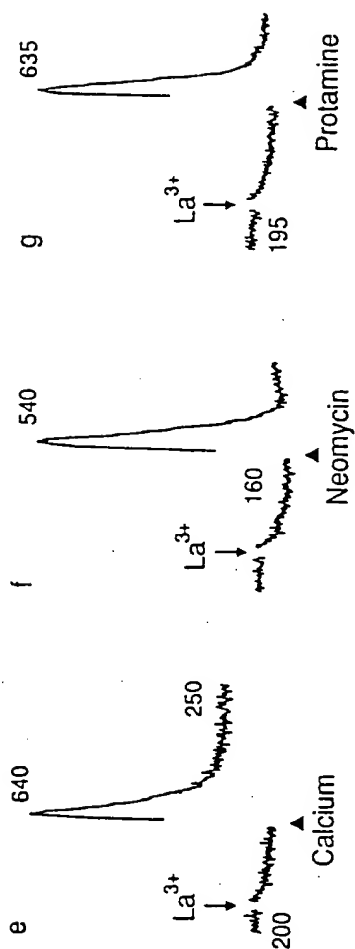


FIG. 11e. FIG. 11f. FIG. 11g.



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18/85

FIG. 11i.

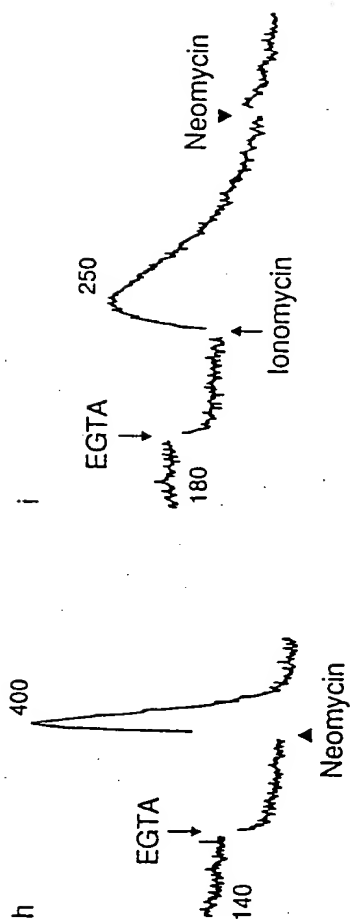


FIG. 12.





19/85

FIG. 13a.

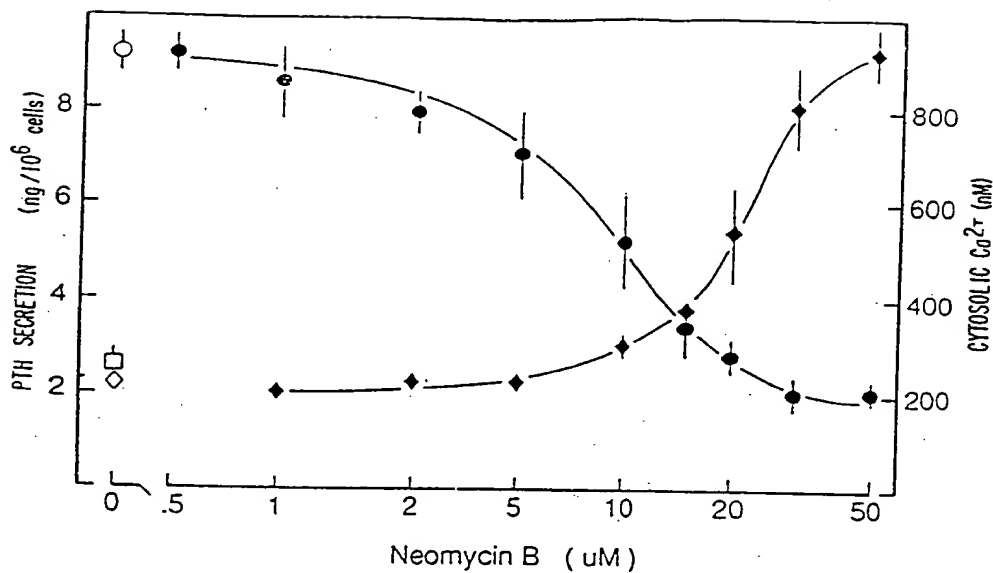
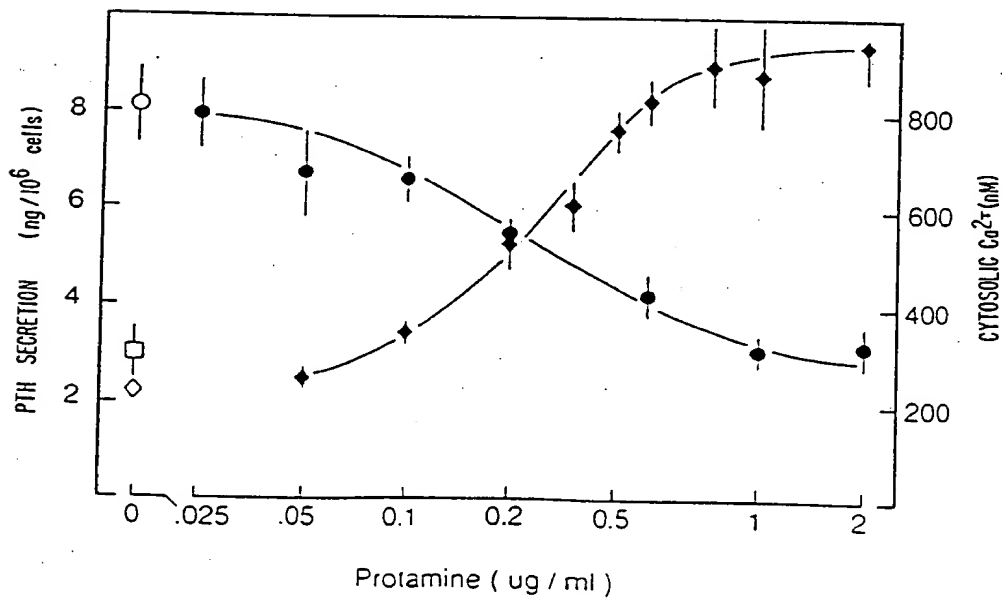


FIG. 13b.





20/85

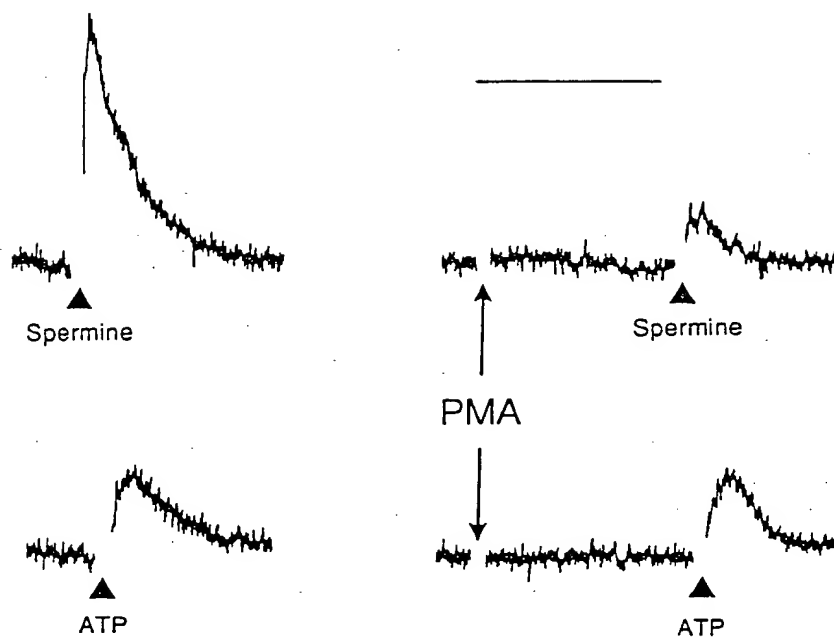
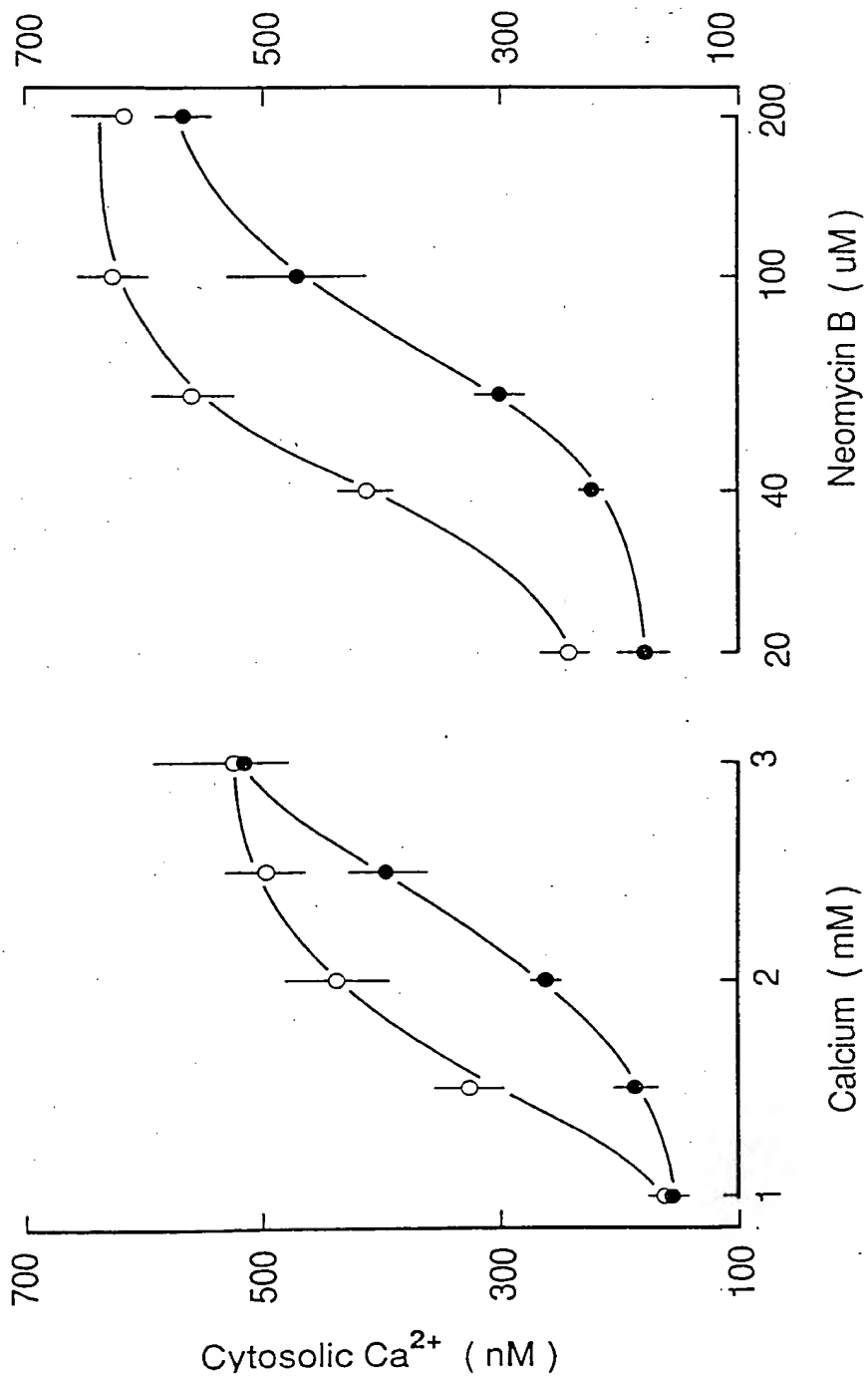


FIG. 14.



21/85

FIG. 15.





22/85

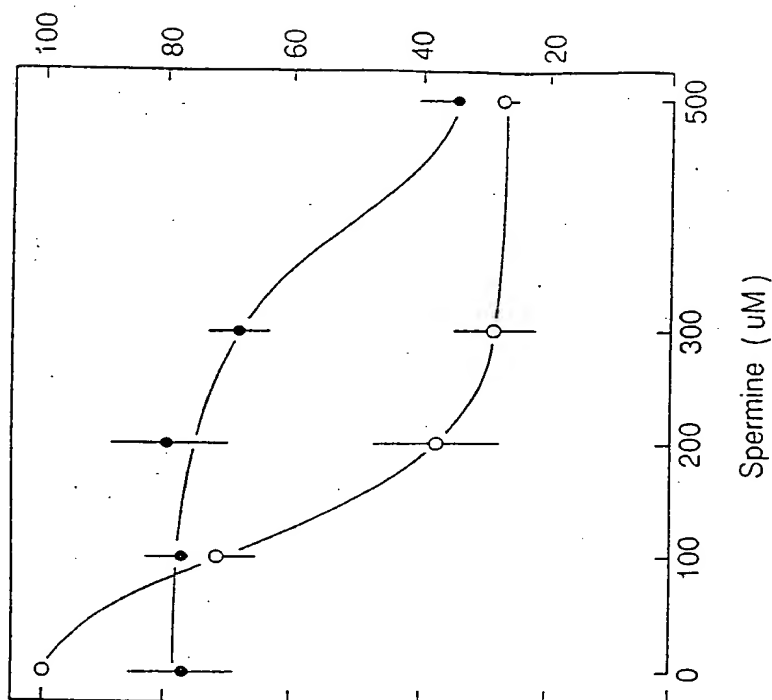


FIG. 16b.

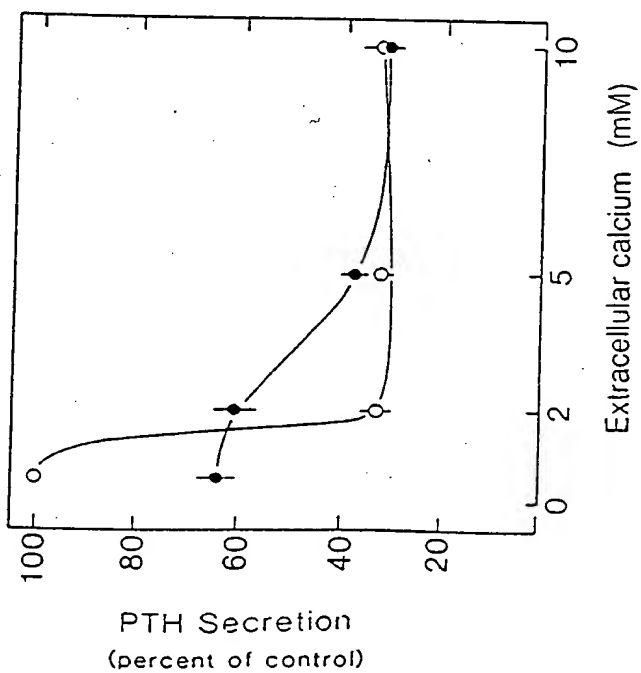


FIG. 16a.



23/85

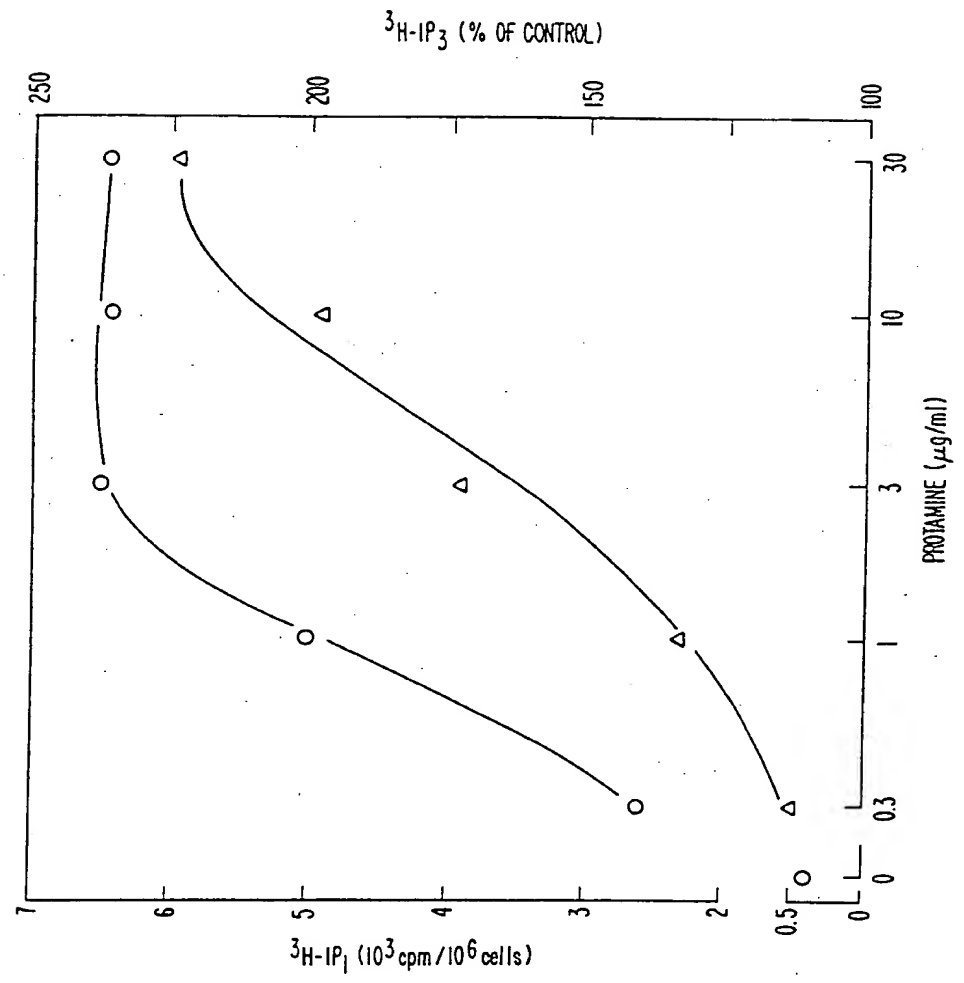


FIG. 17.

24/85

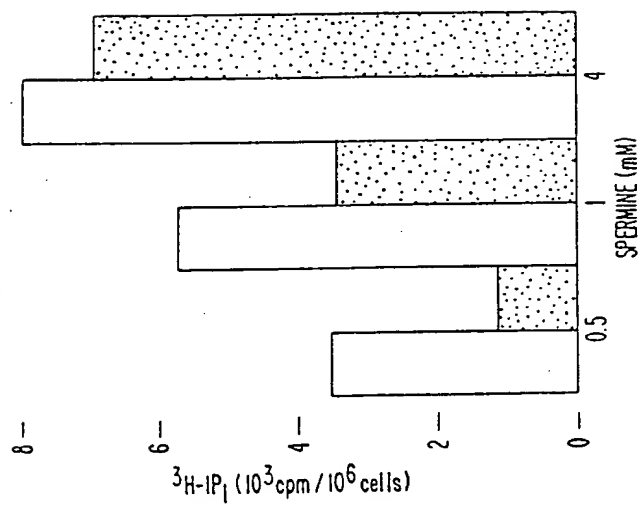


FIG. 18b.

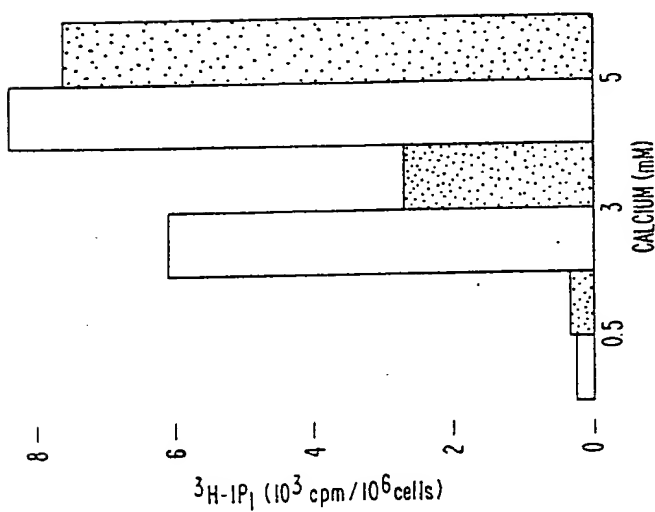


FIG. 18a.



25/85

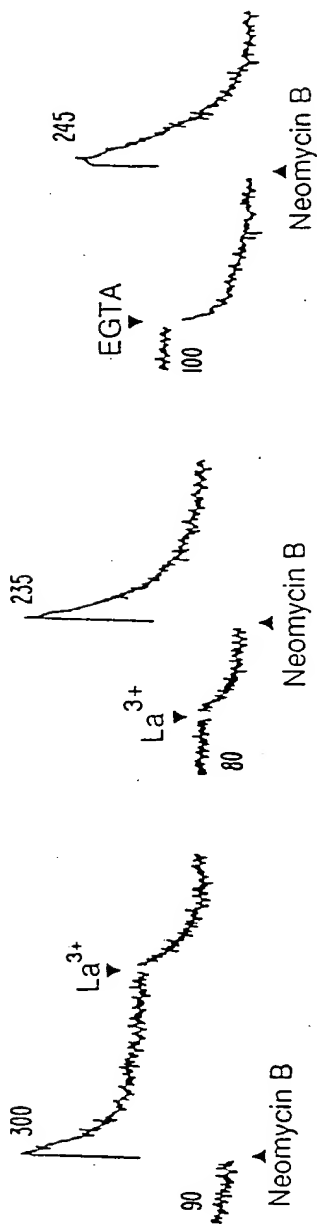


FIG. 19.



26/85

FIG. 20a.

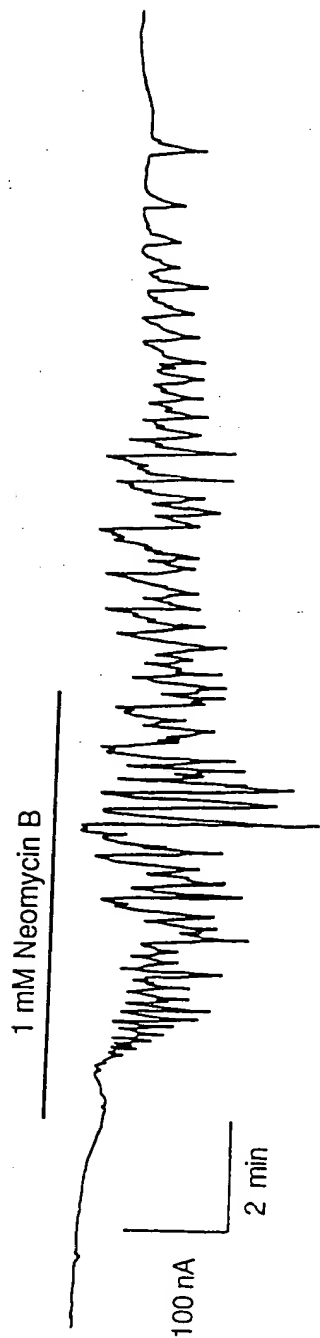
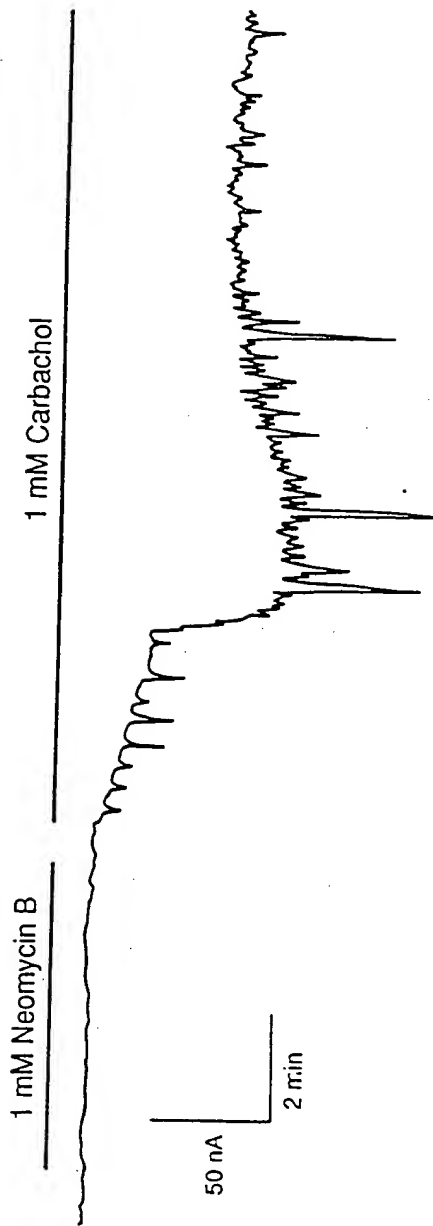


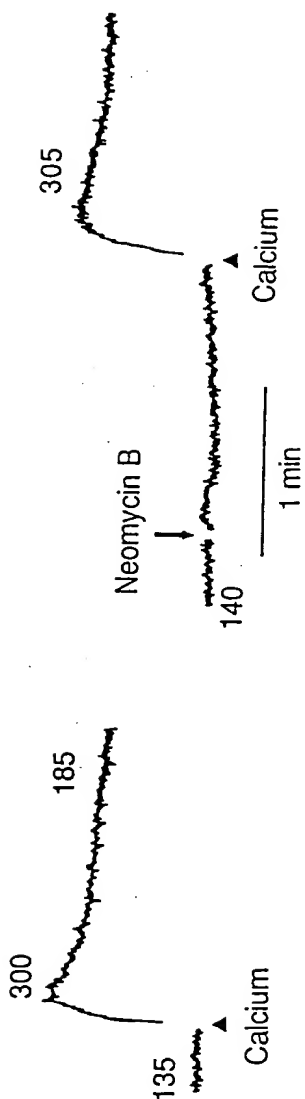
FIG. 20b.



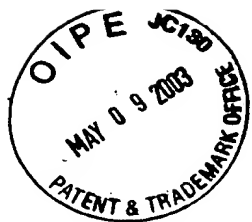


27/85

FIG. 21.

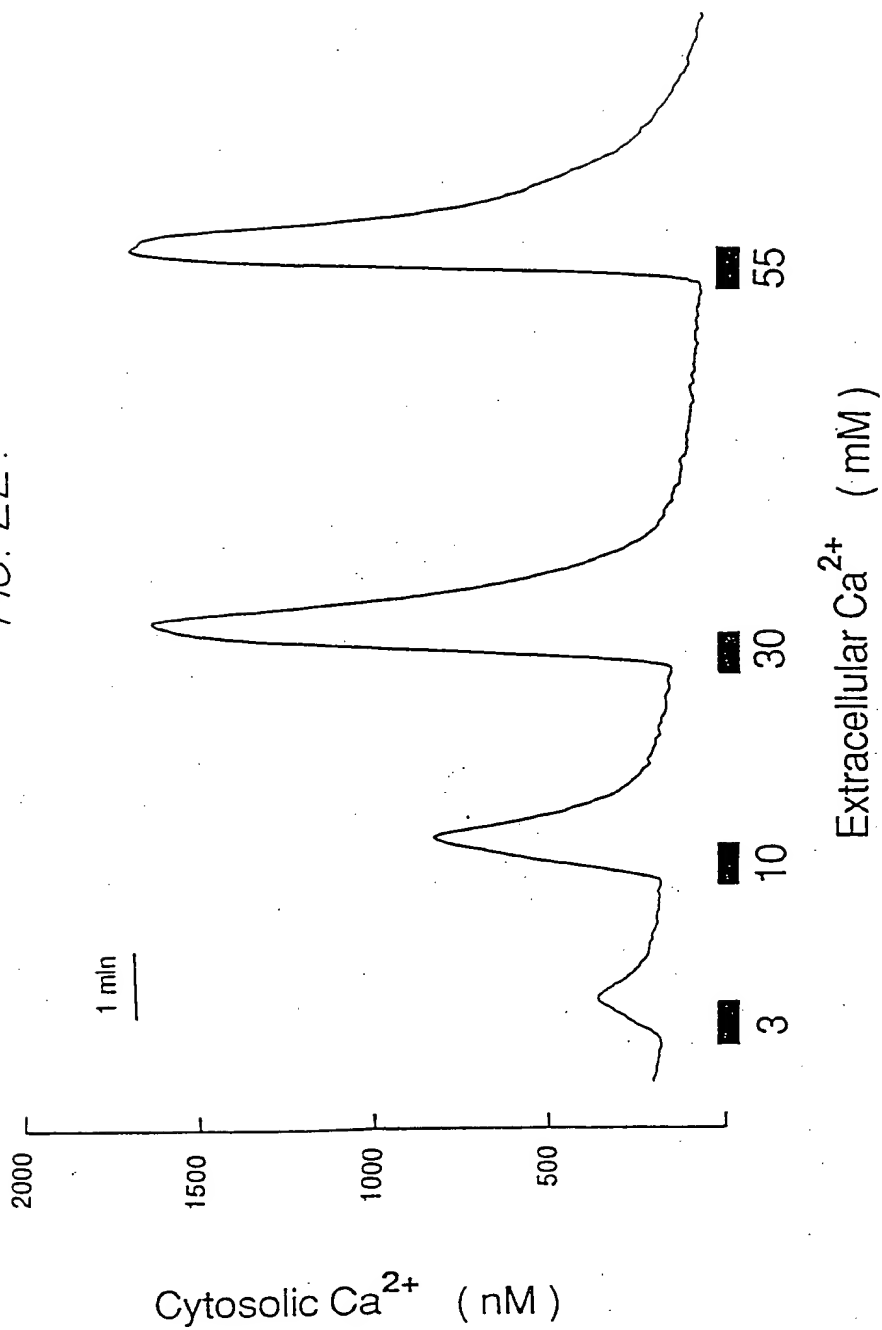


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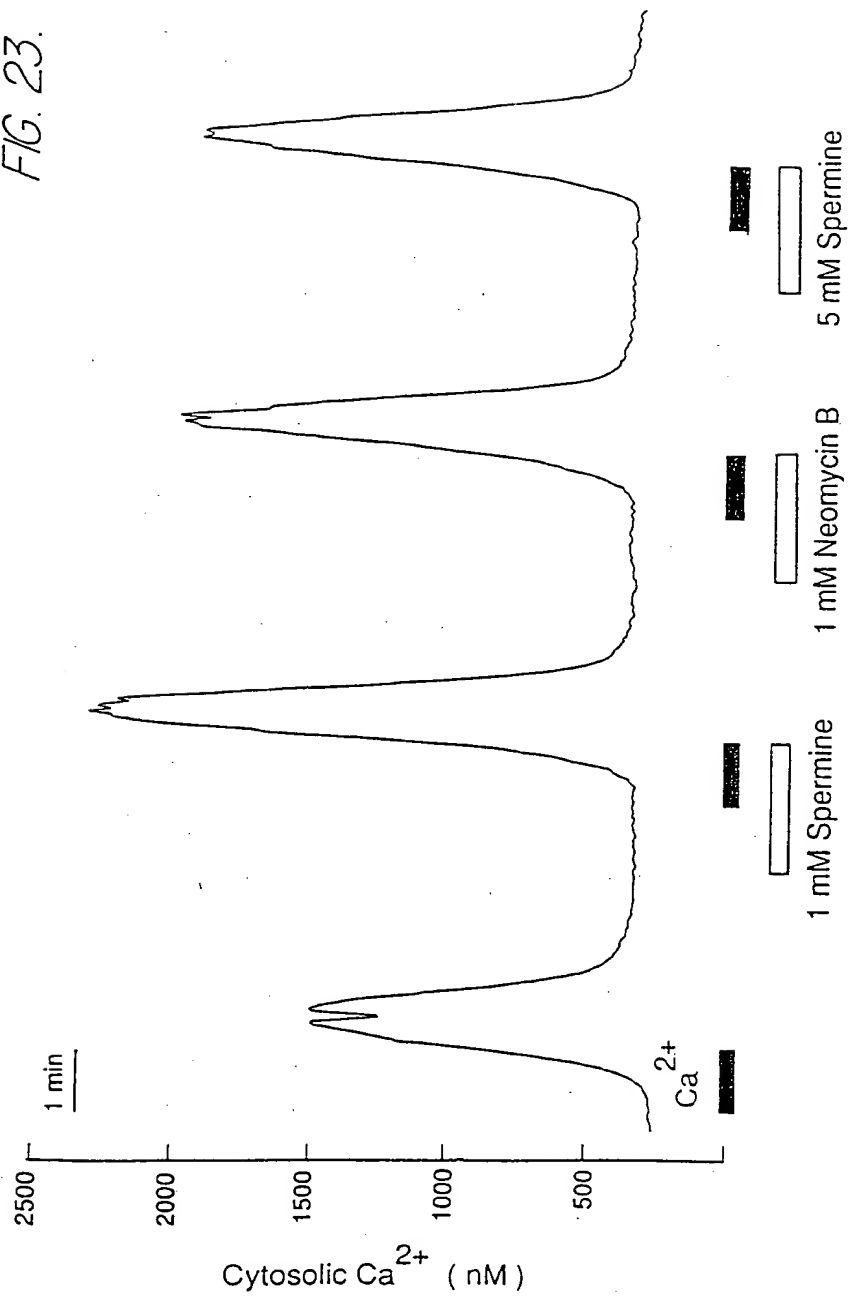
28/85

FIG. 22.



29/85

FIG. 23.





30/85

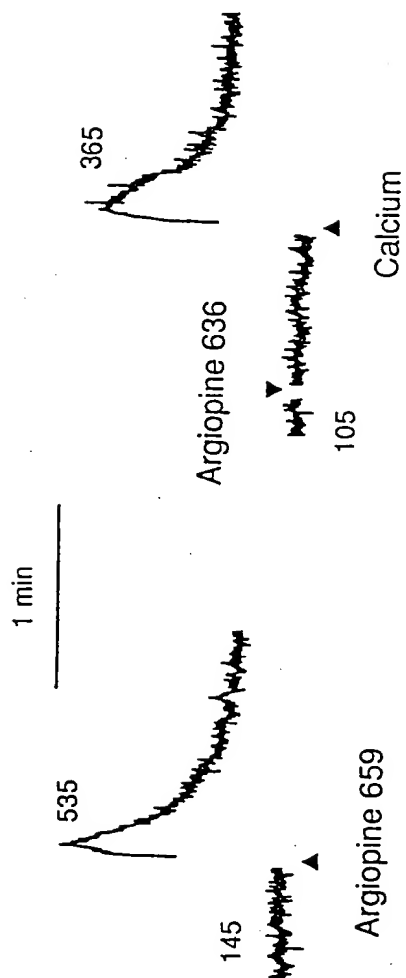
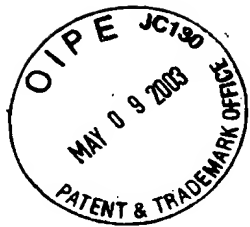
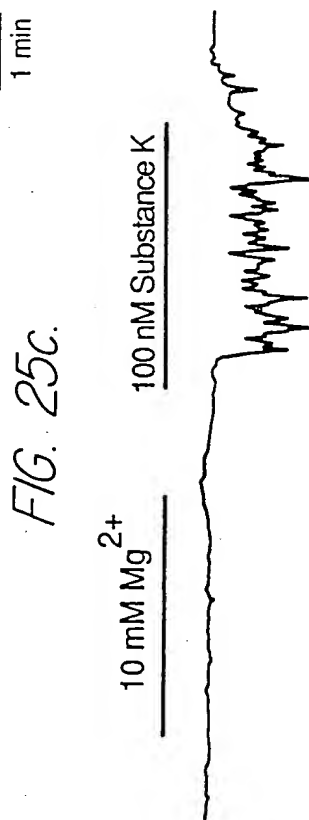
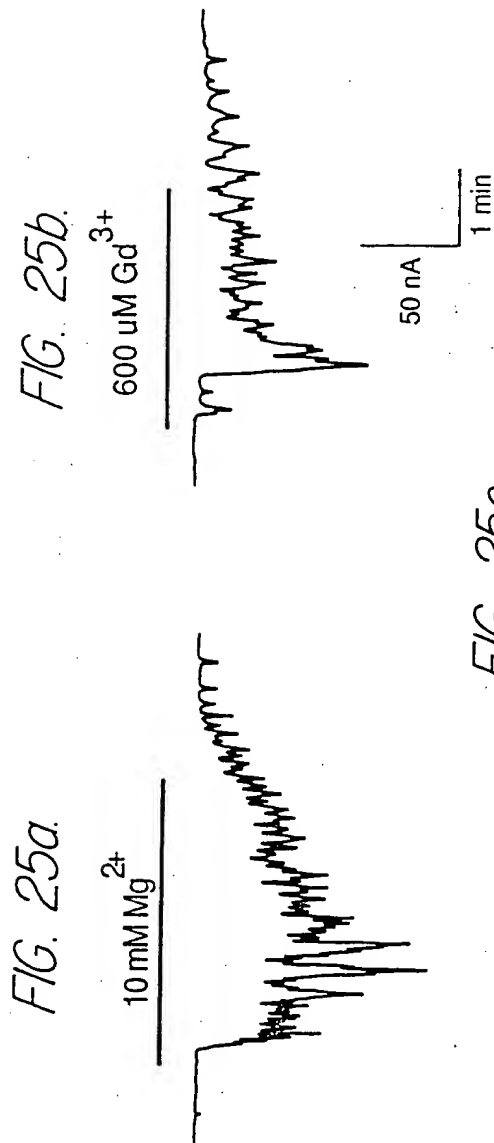


FIG. 24.



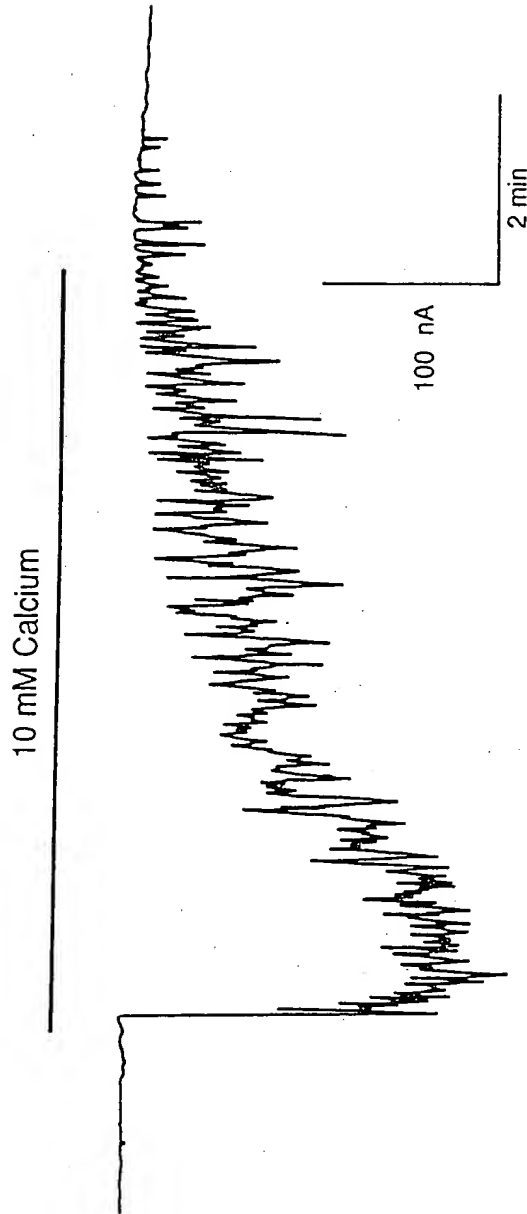
31/85





32/85

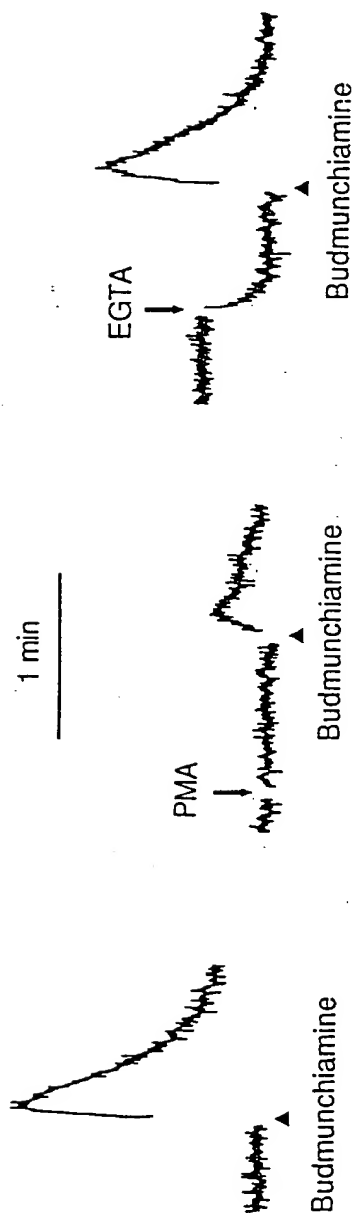
FIG. 26.

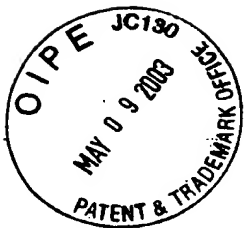




33/85

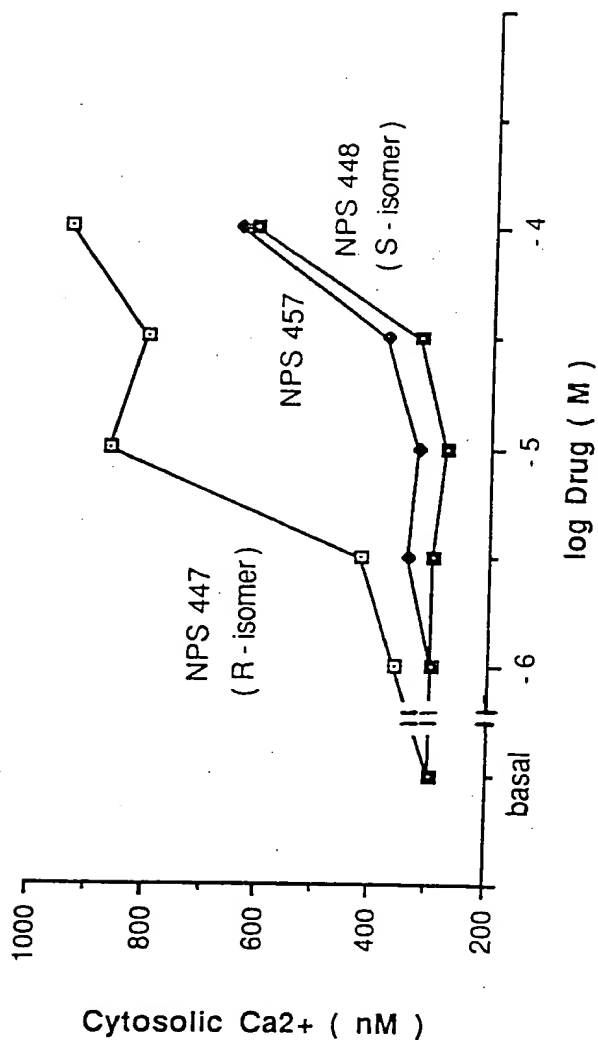
FIG. 27.

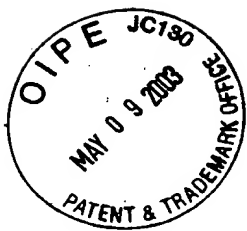




34/85

FIG. 28a.





35/85

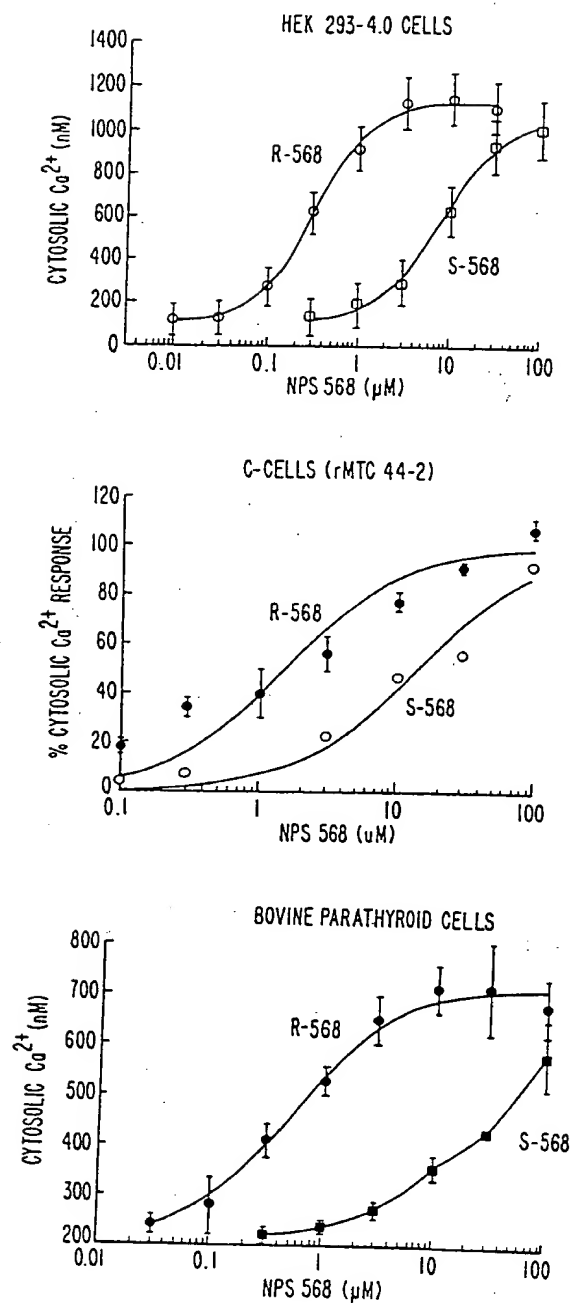


FIG. 28b.



36/85

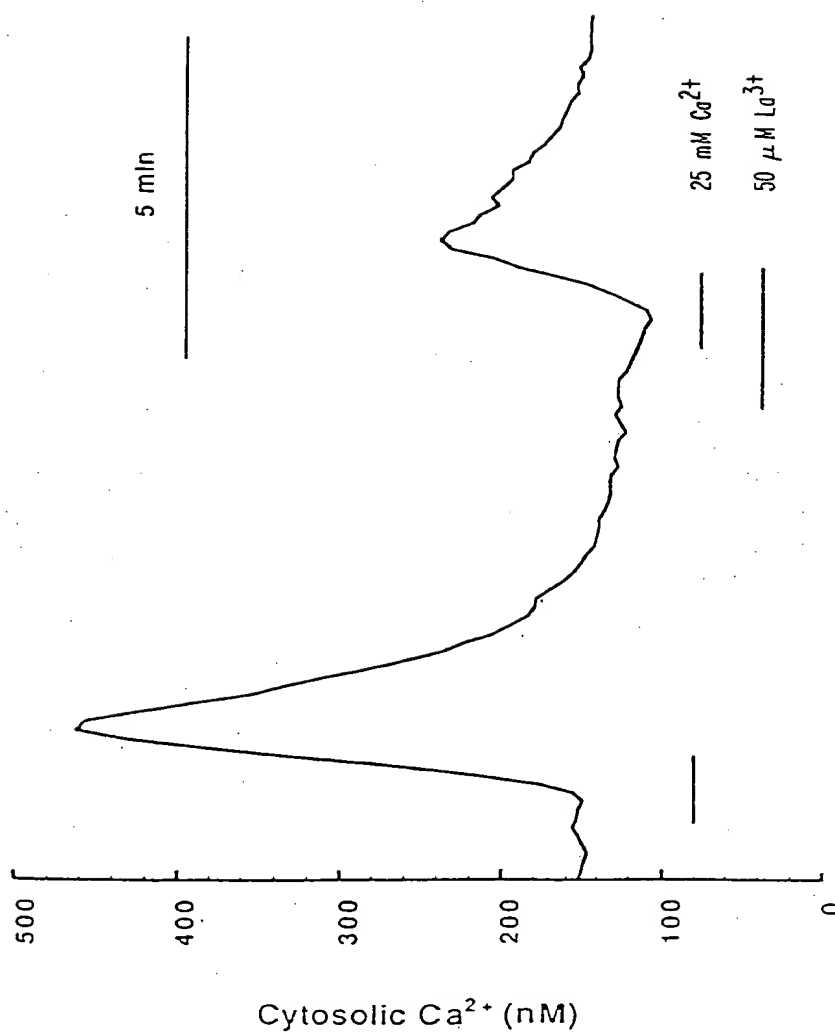


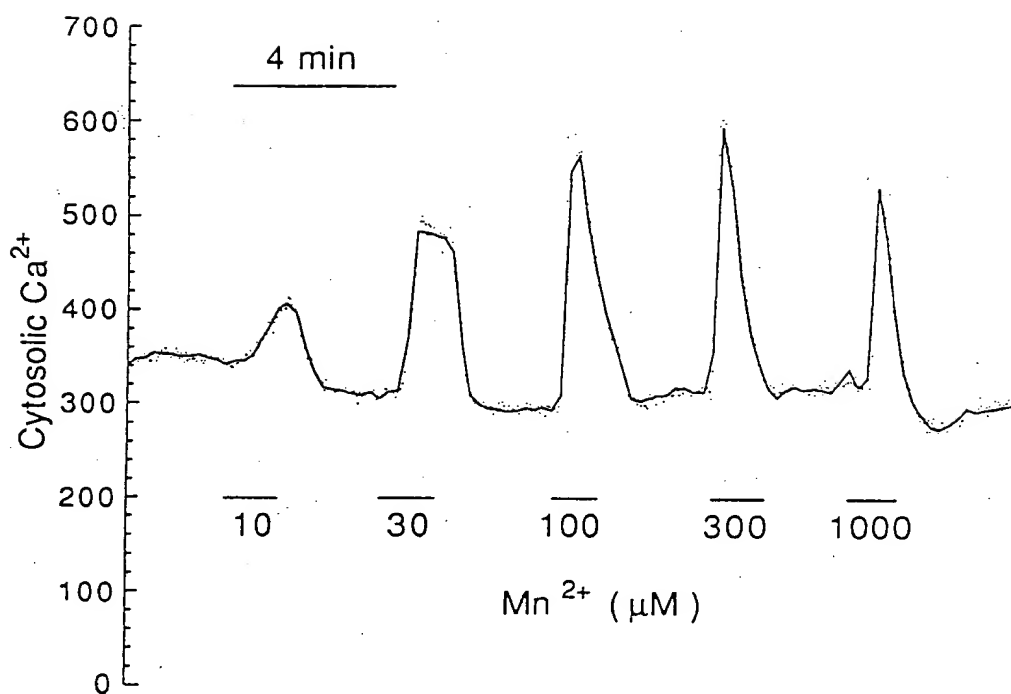
FIG. 29.

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MAY 14 2003
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37/85

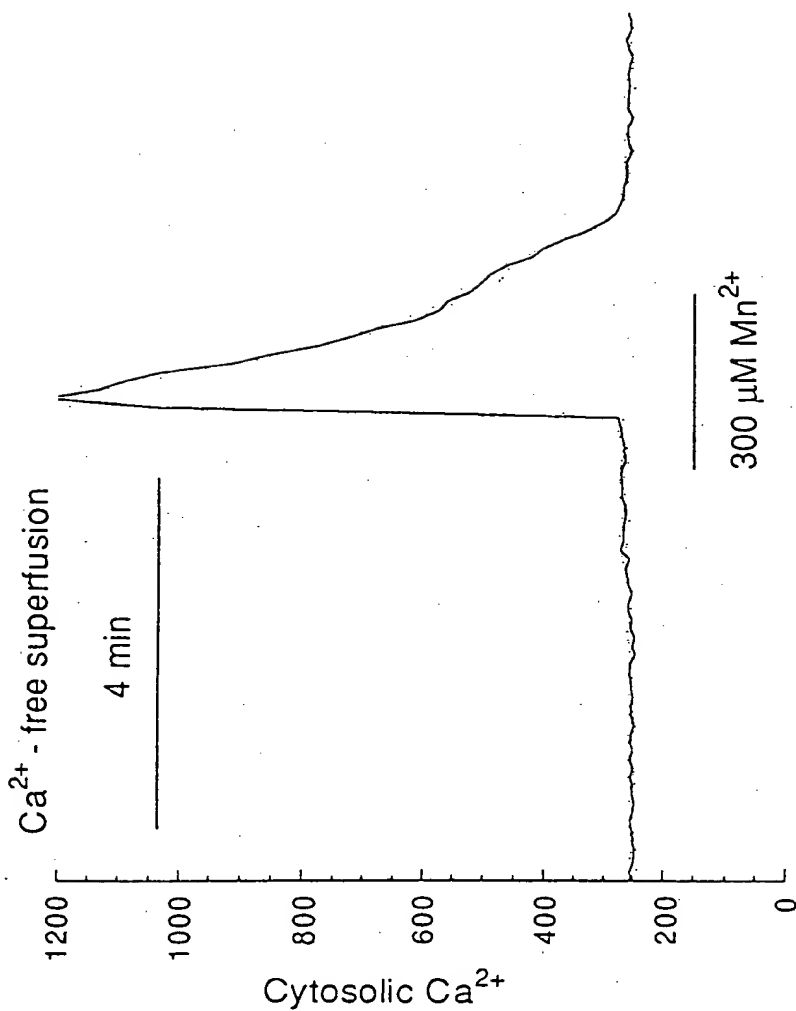
FIG. 30a.





38/85

FIG. 30b.





39/85

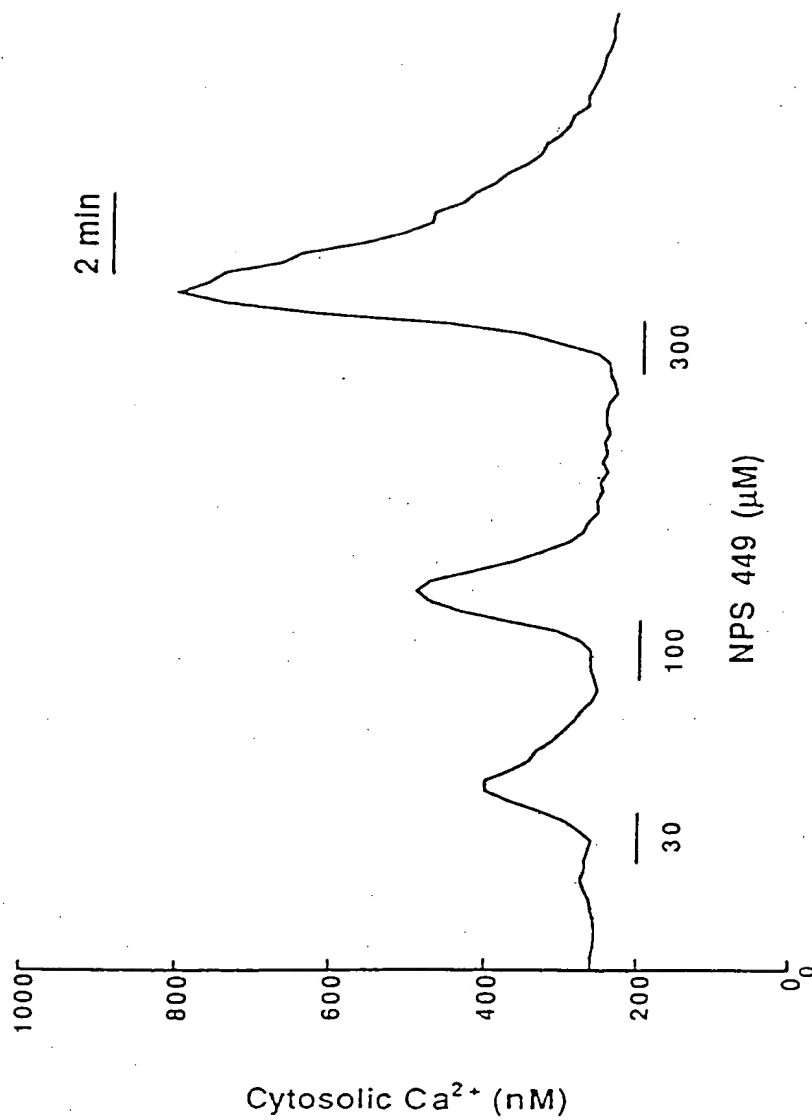


FIG. 31a.



40/85

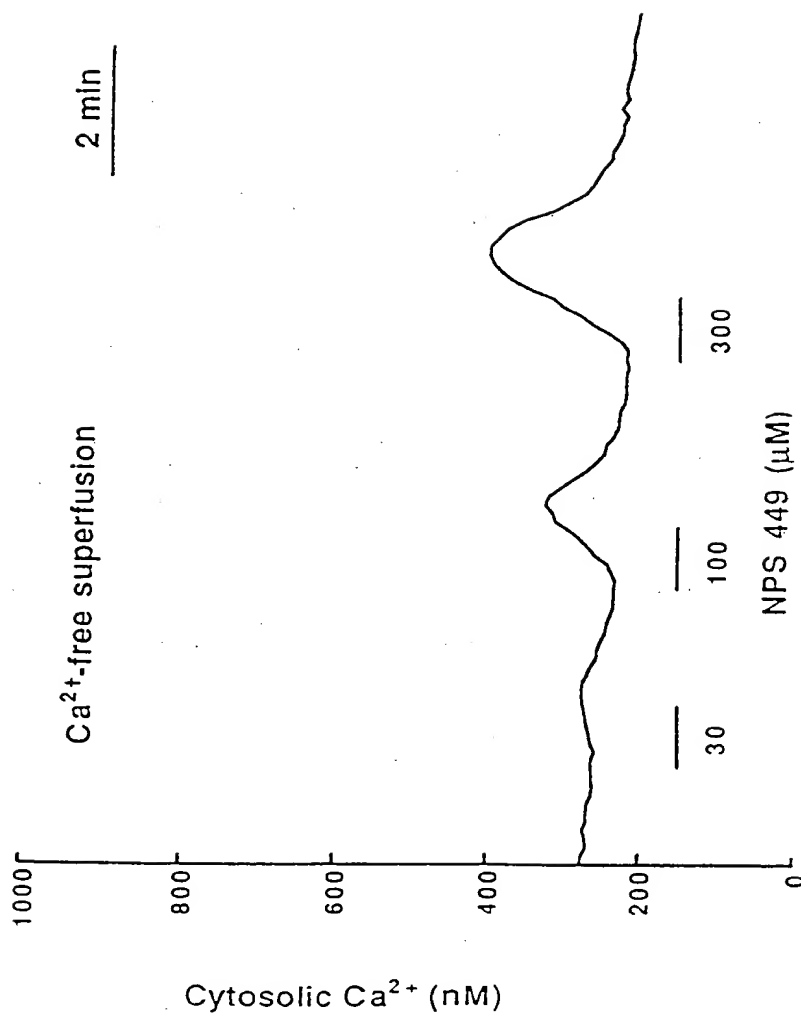


FIG. 31b.



41/85

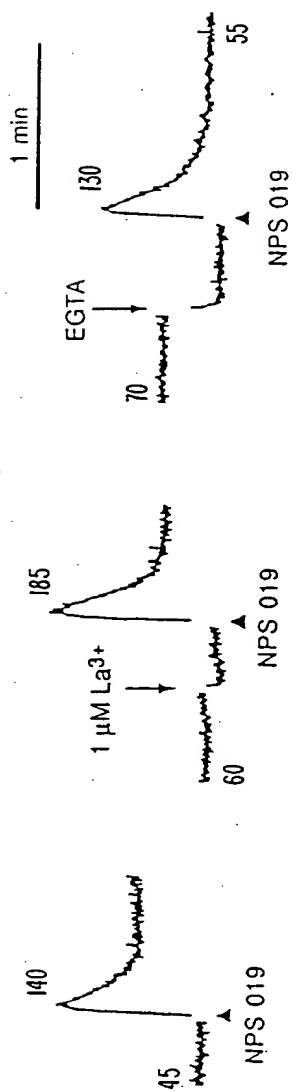


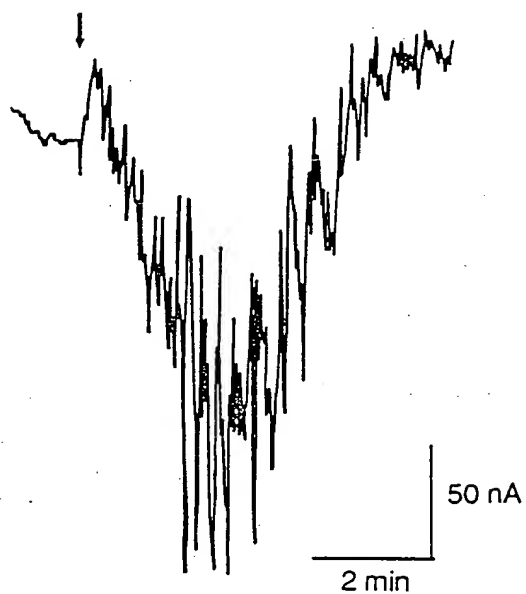
FIG. 32.



42/85

FIG. 33.

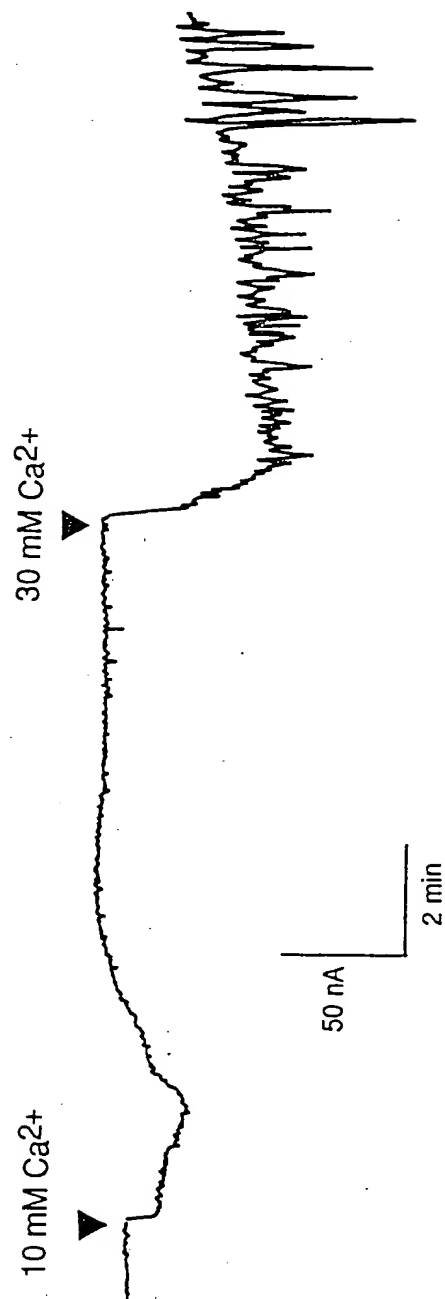
100 μ M NPS 456

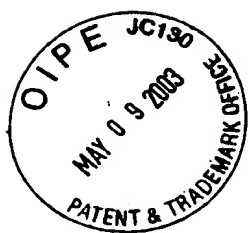




43/85

FIG. 34.





44/85

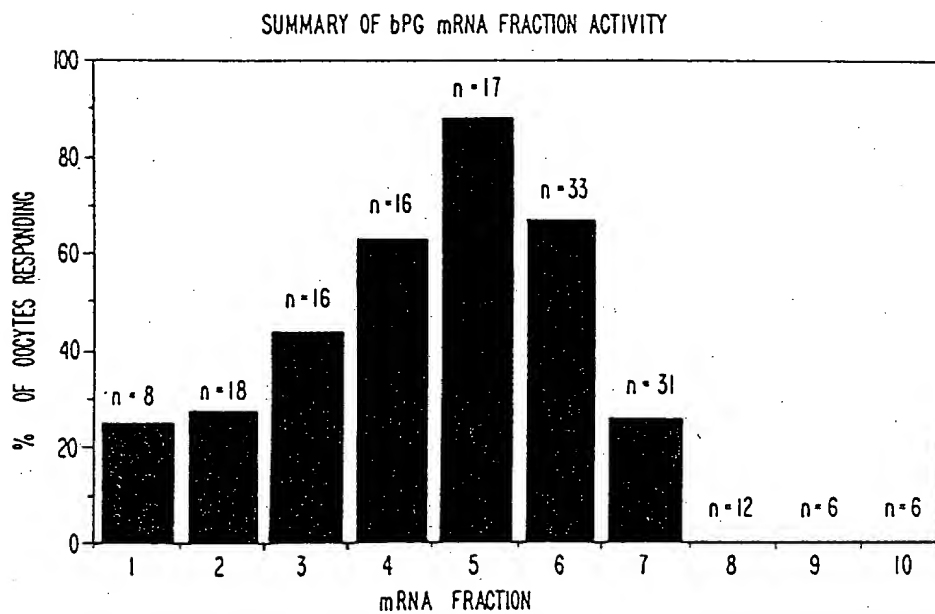


FIG. 35.

45/85

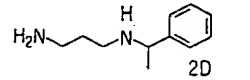
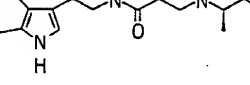
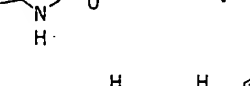
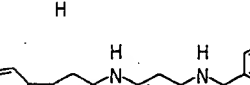
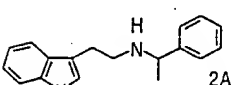
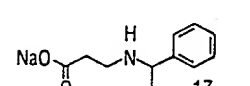
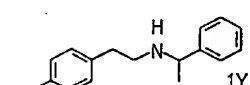
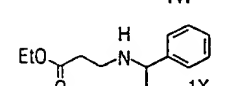
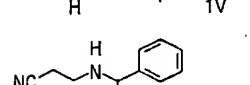
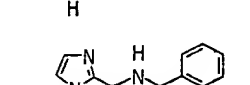
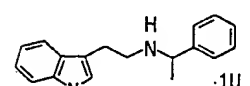
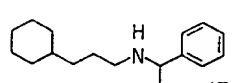
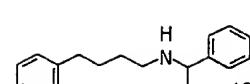
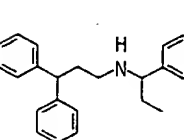
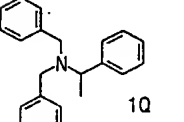
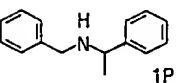
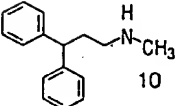
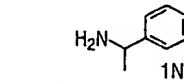
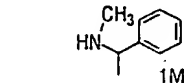
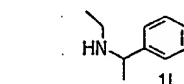
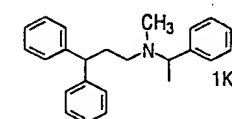
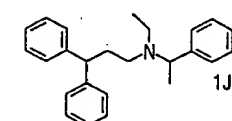
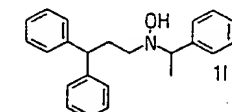
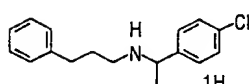
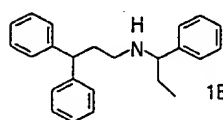
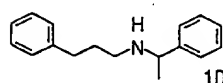
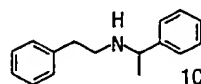
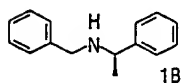
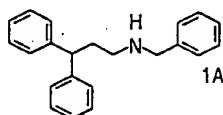
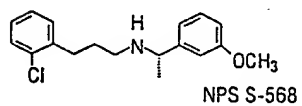
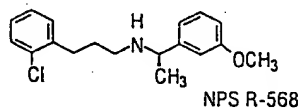
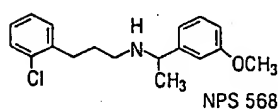
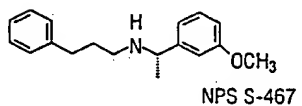
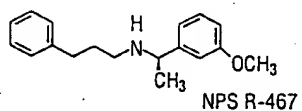
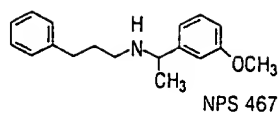


FIG. 36A

46/85

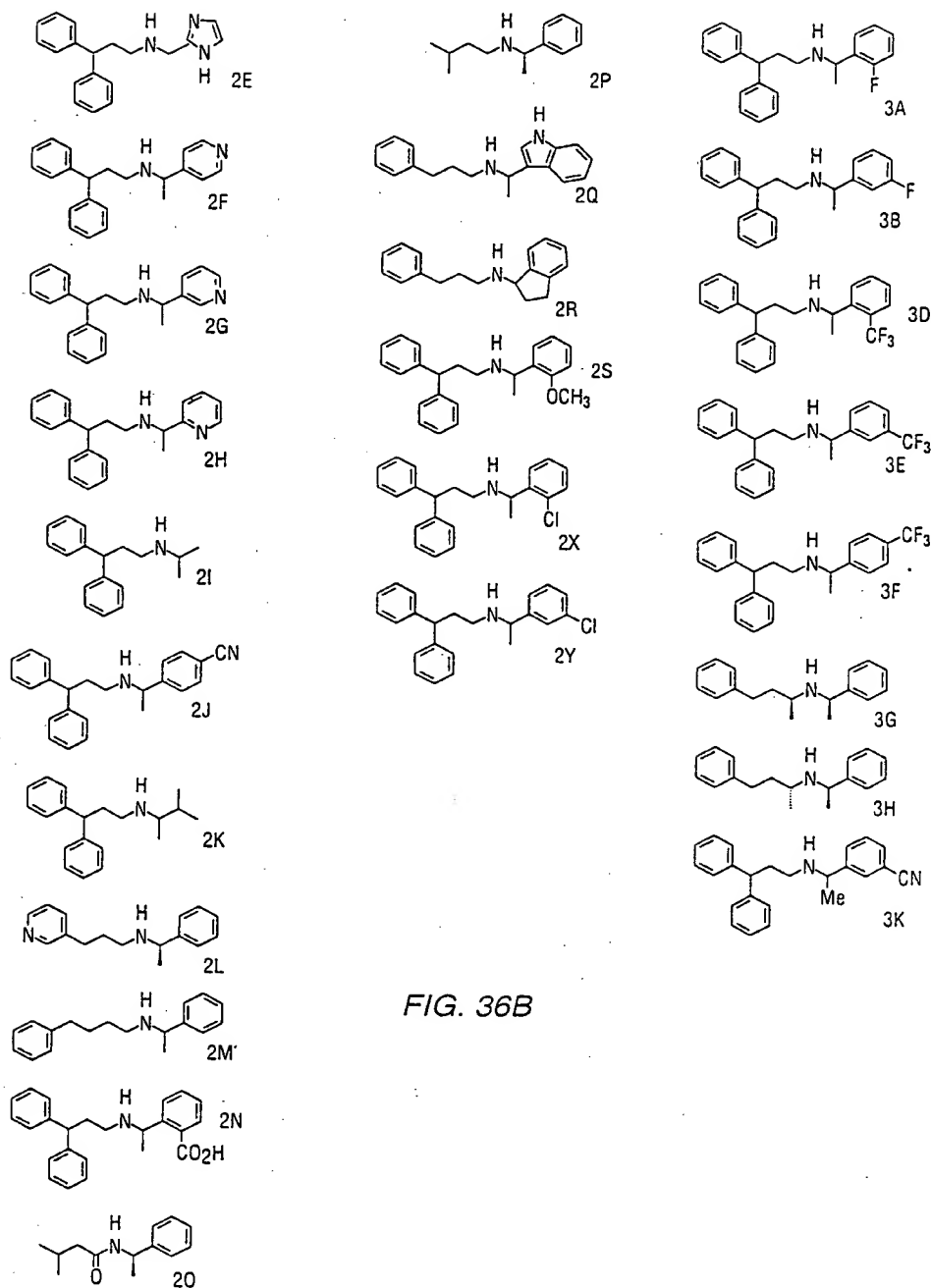


FIG. 36B

47/85

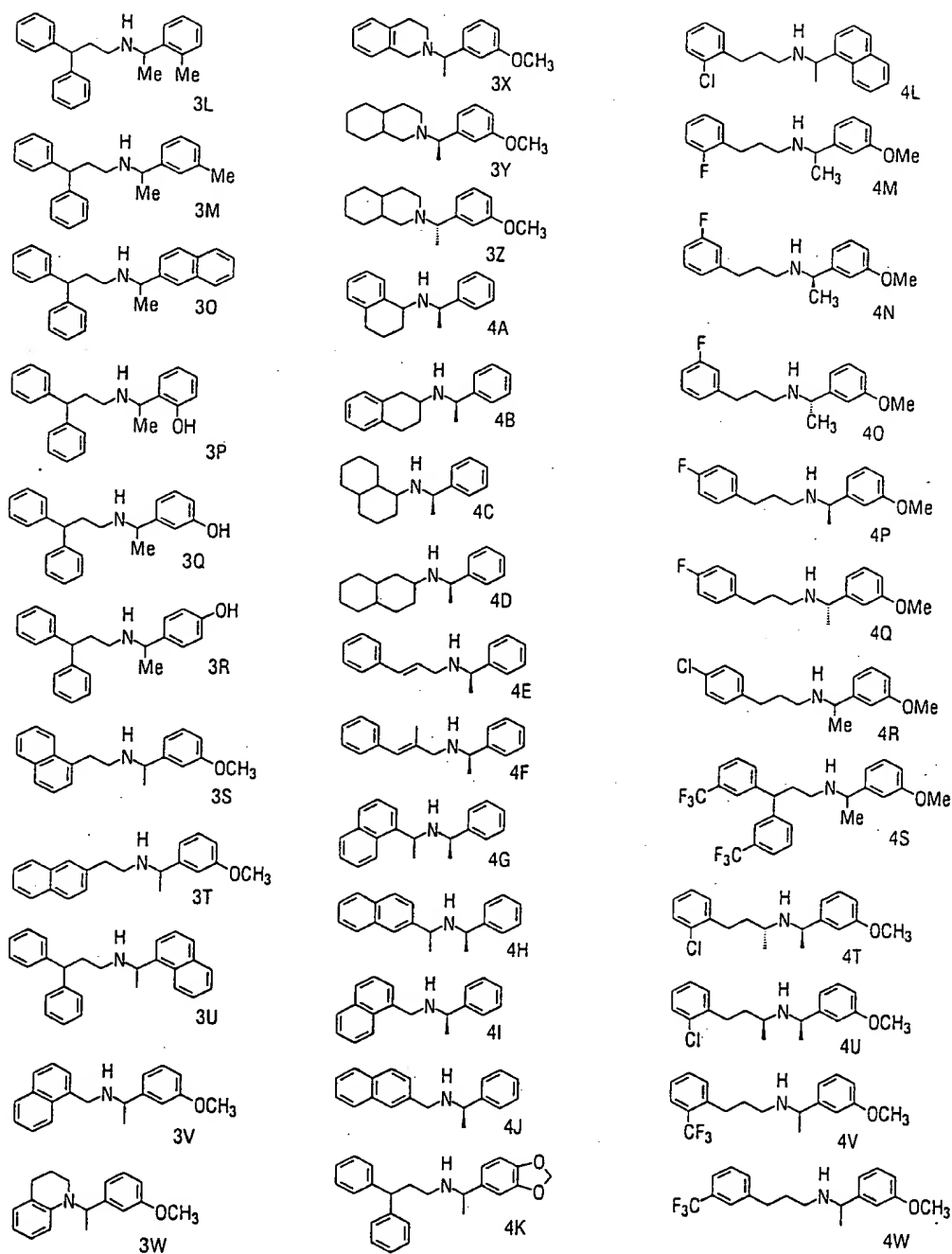


FIG. 36C

48/85

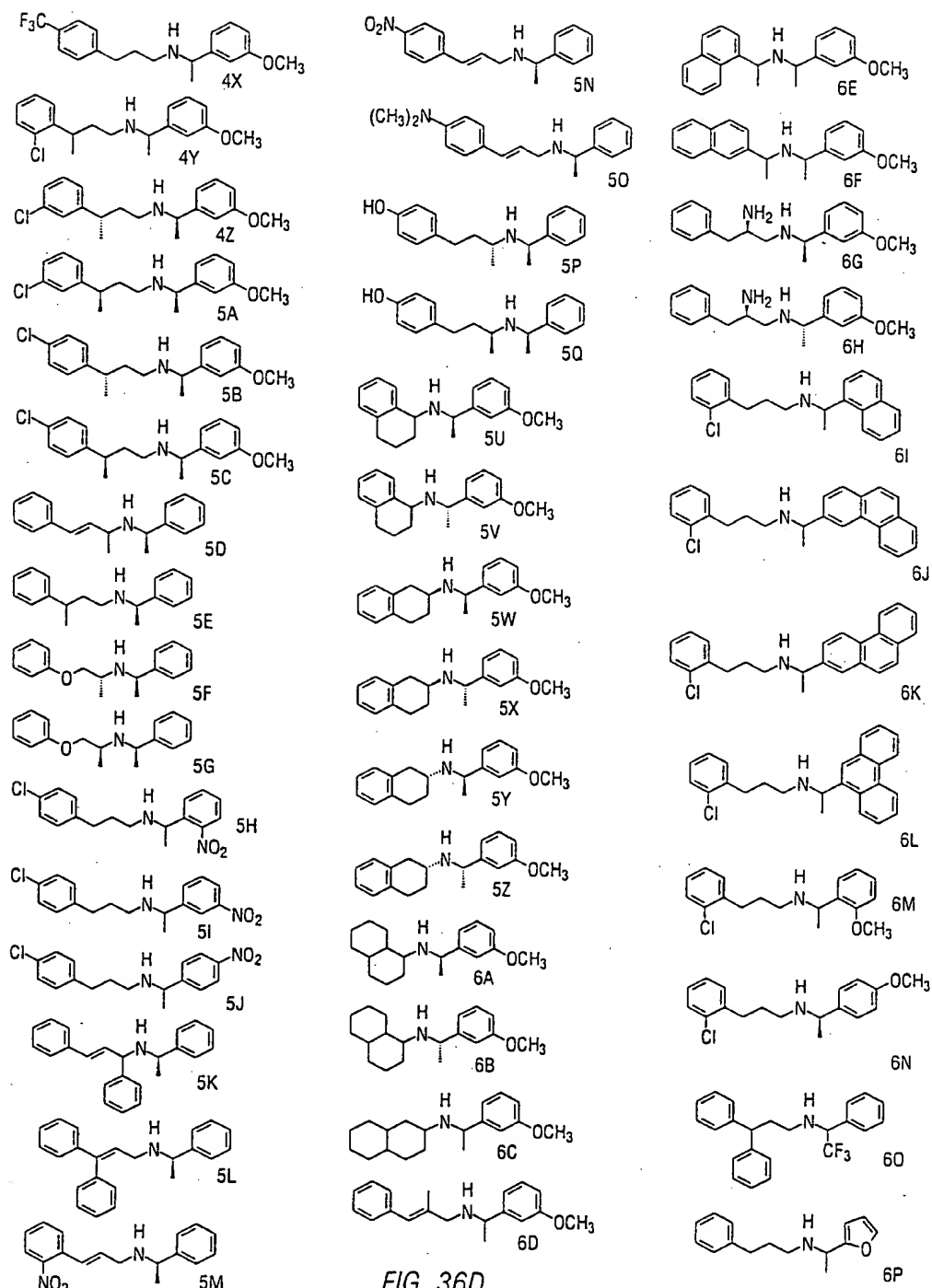


FIG. 36D

49/85

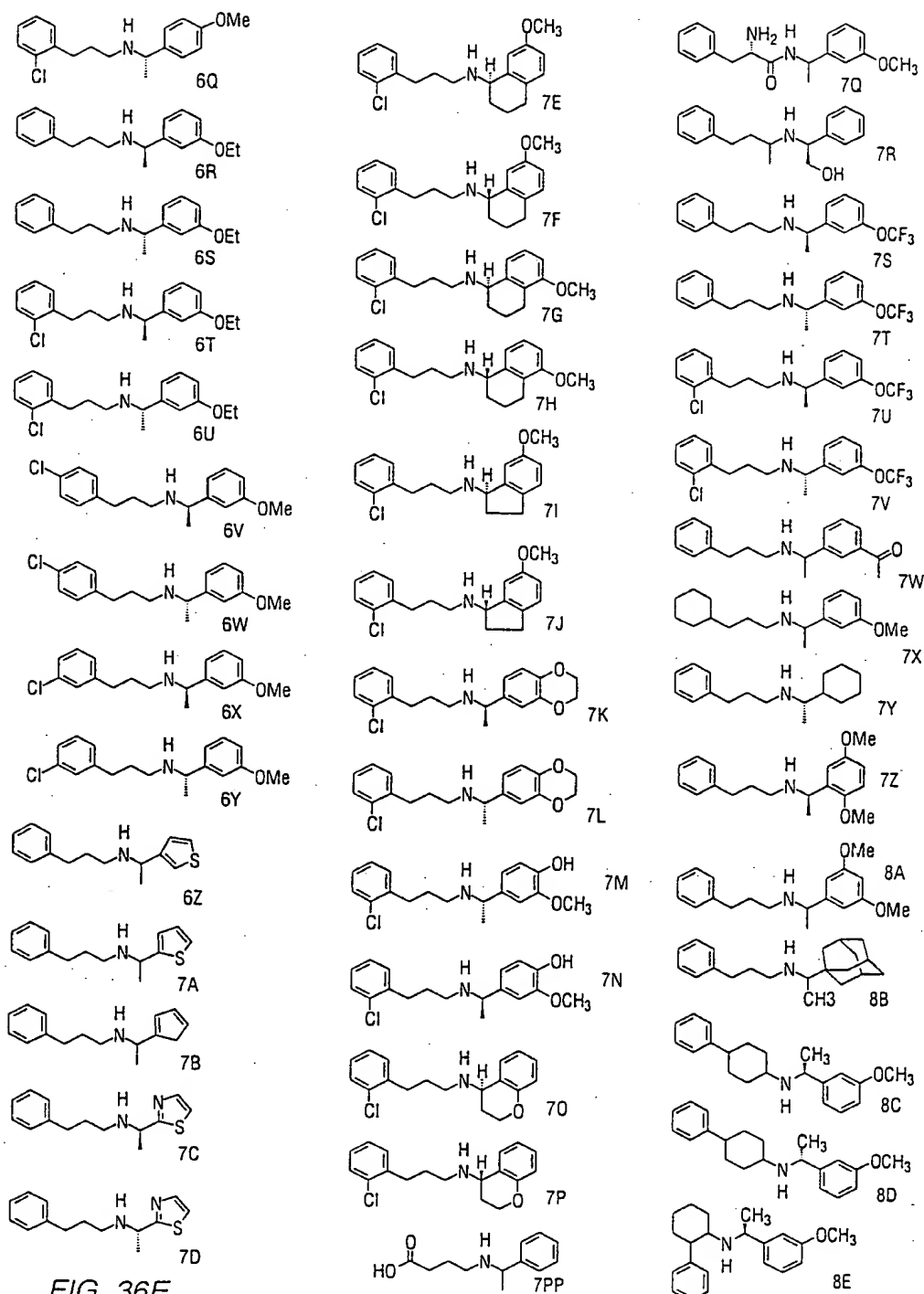


FIG. 36E

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MAY 14 2003
TECH CENTER 1600/2900

50/85

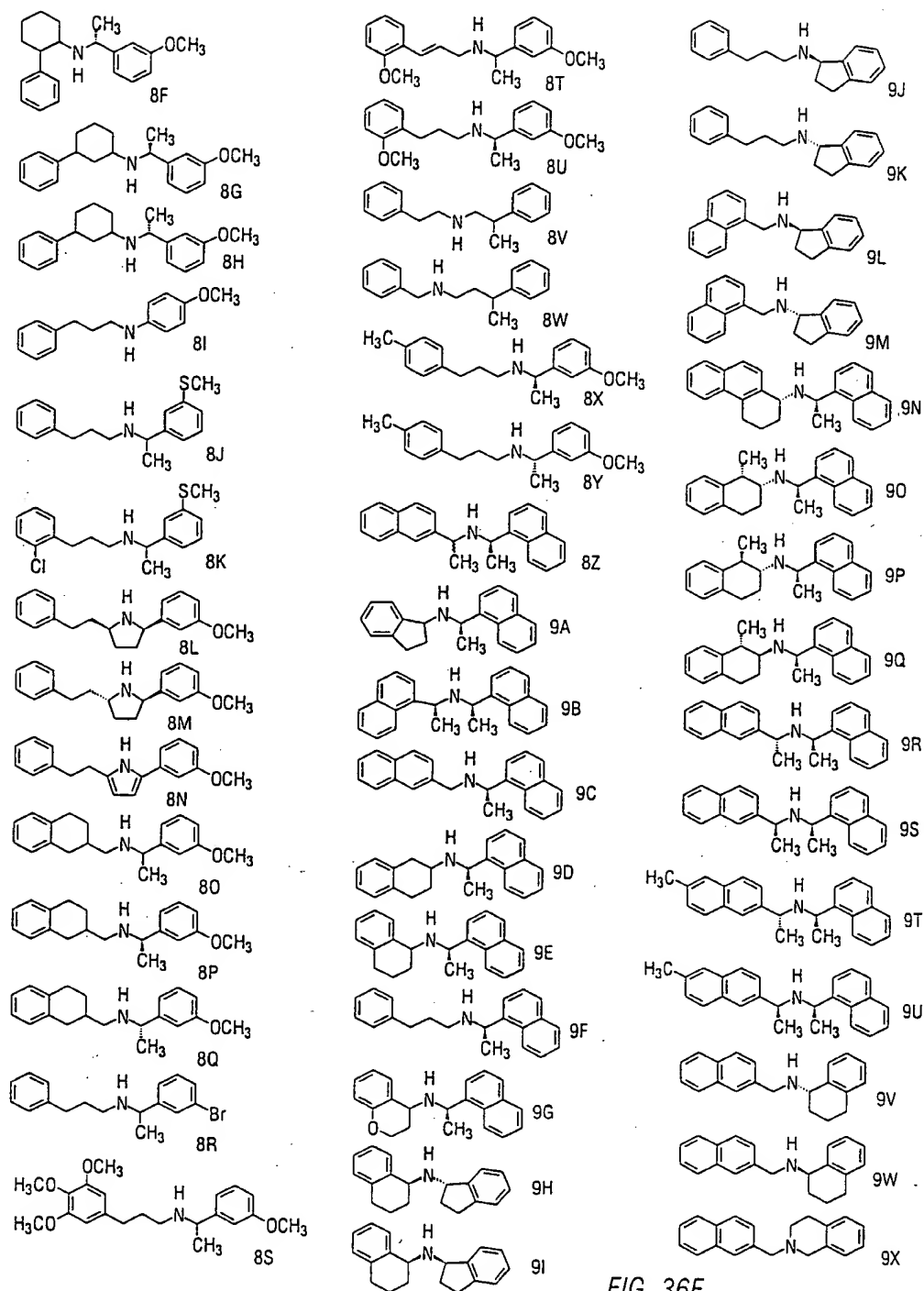


FIG. 36F

51/85

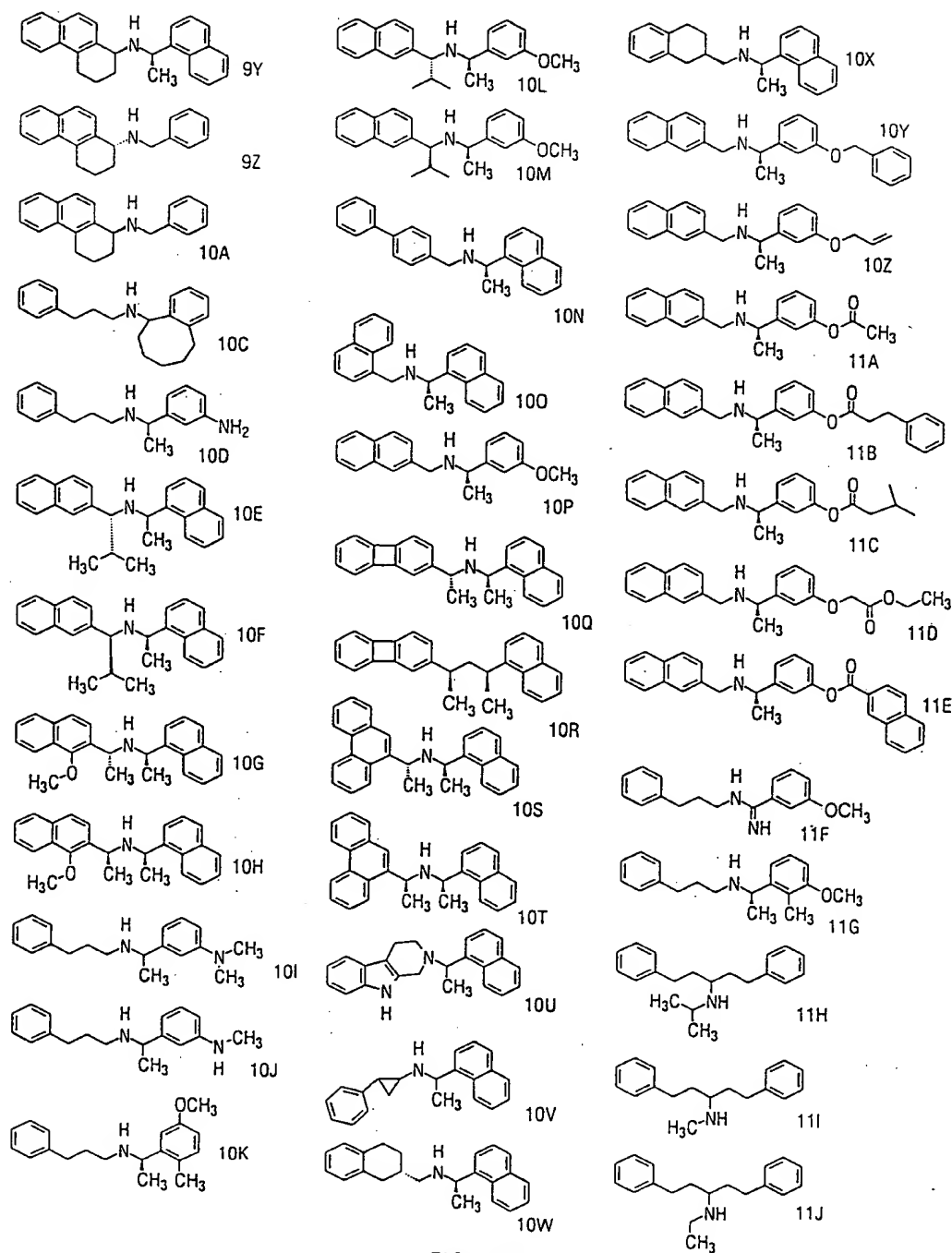
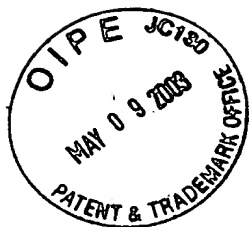


FIG. 36G

RECEIVED
MAY 14 2003
TECH CENTER 1600/2900



52/85

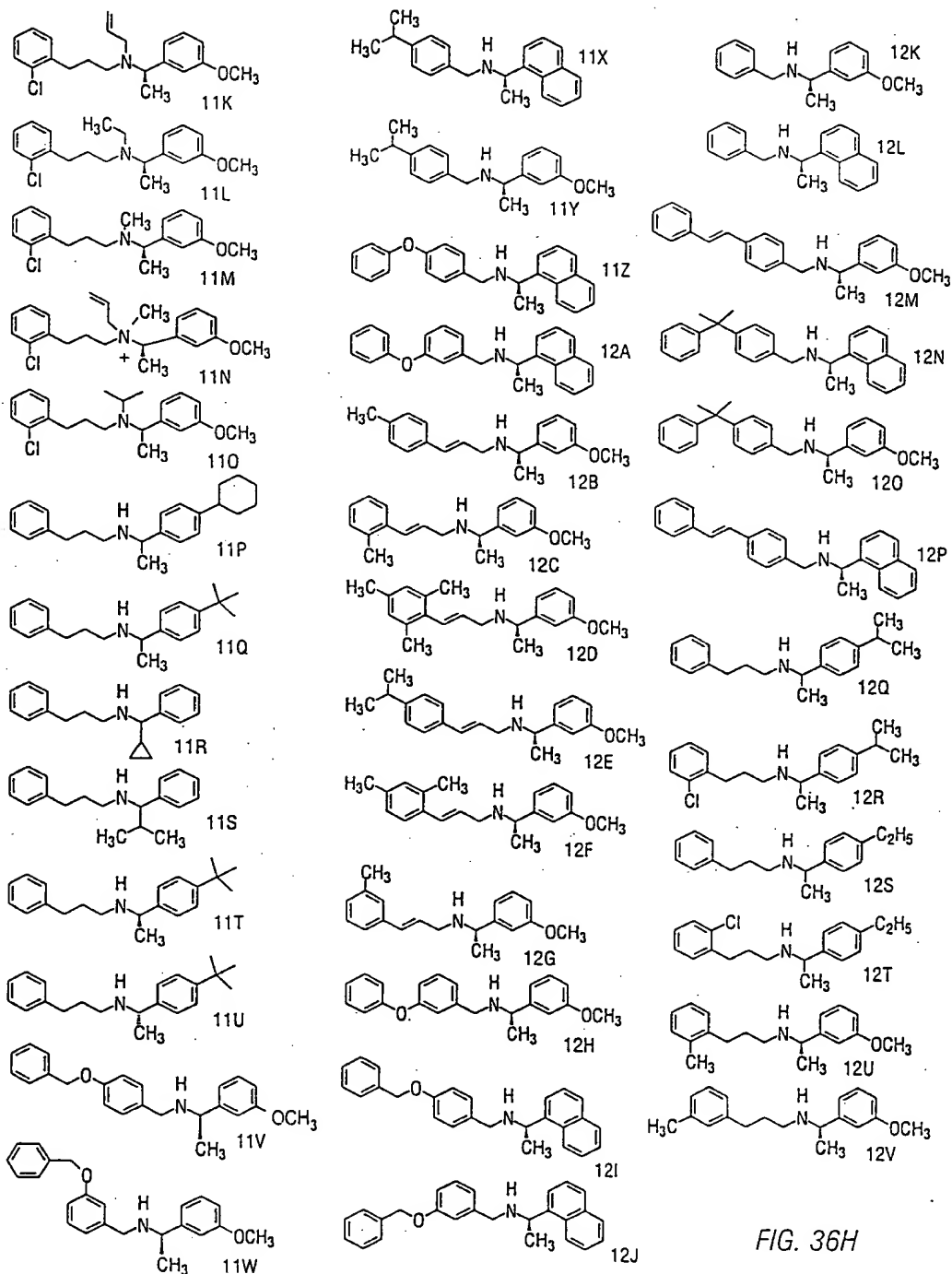


FIG. 36H

53/85

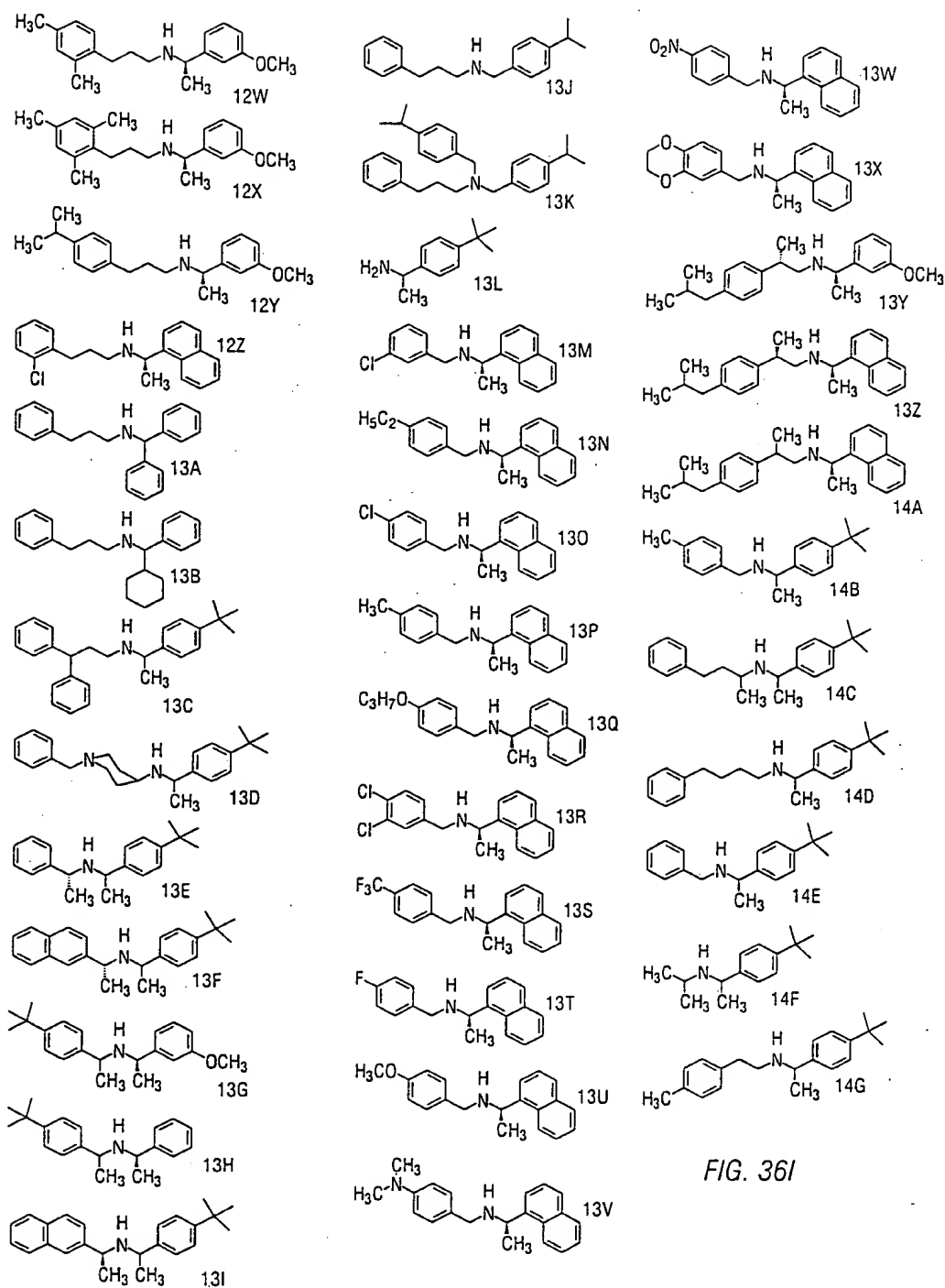


FIG. 361

54/85

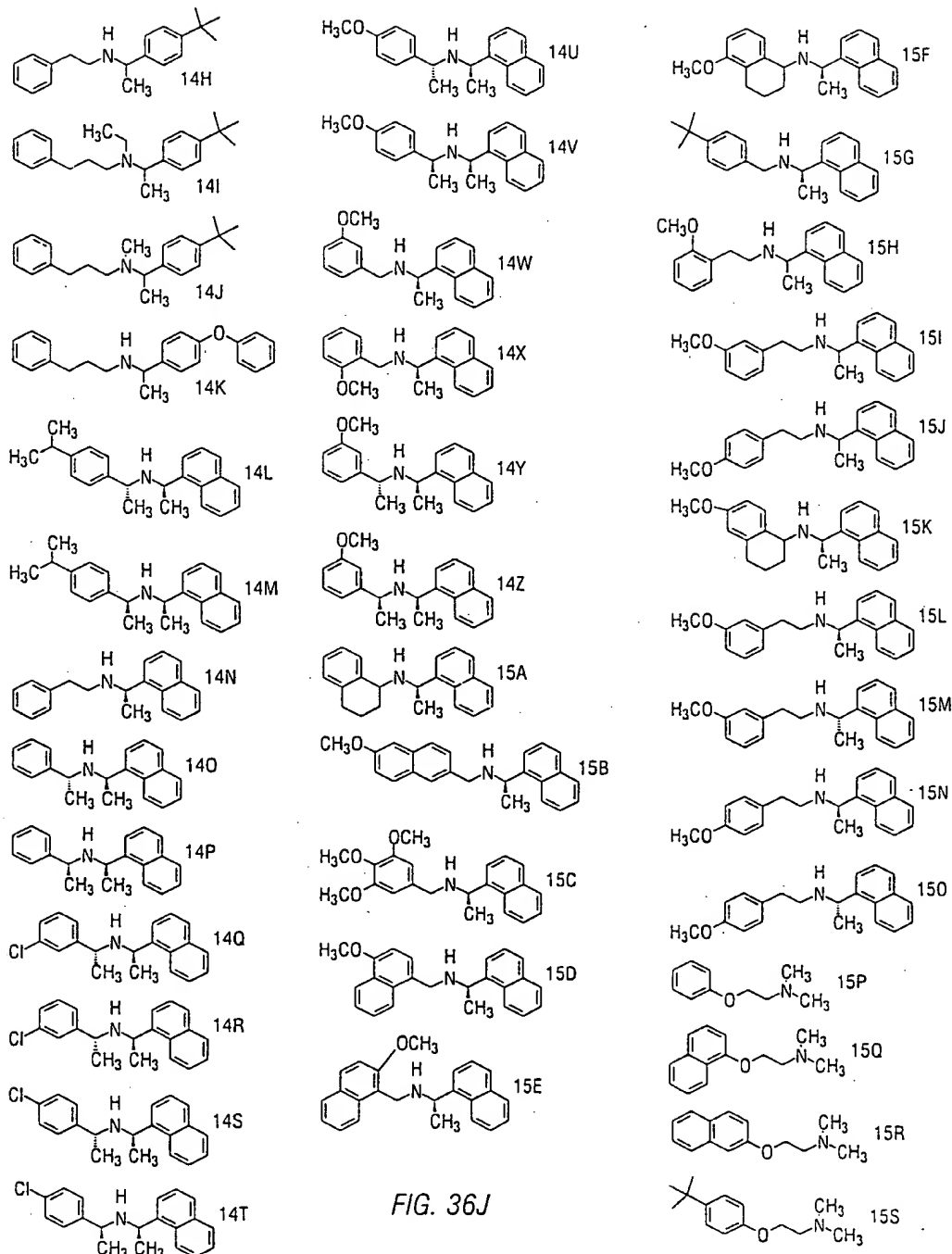


FIG. 36J

55/85

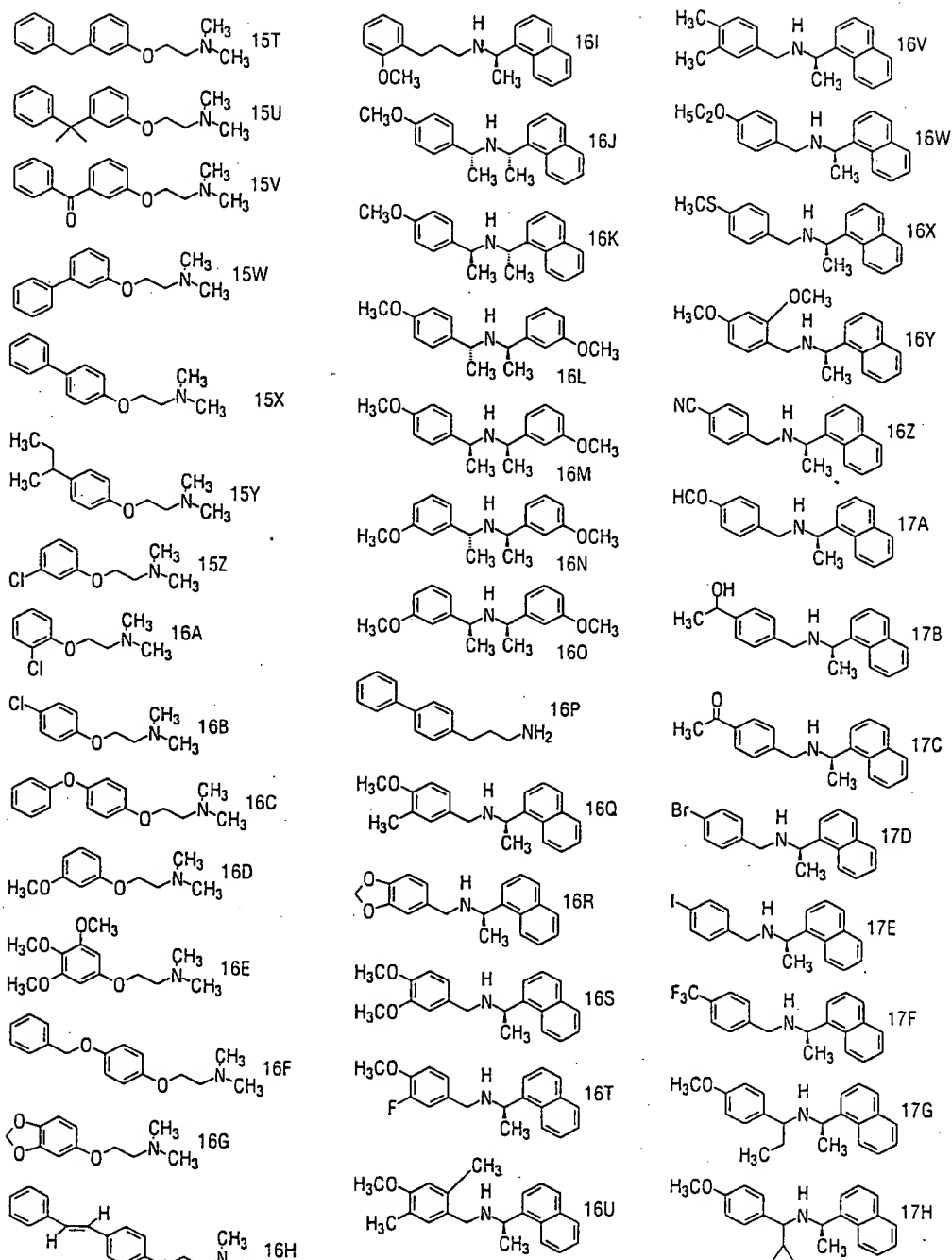


FIG. 36K



56/85

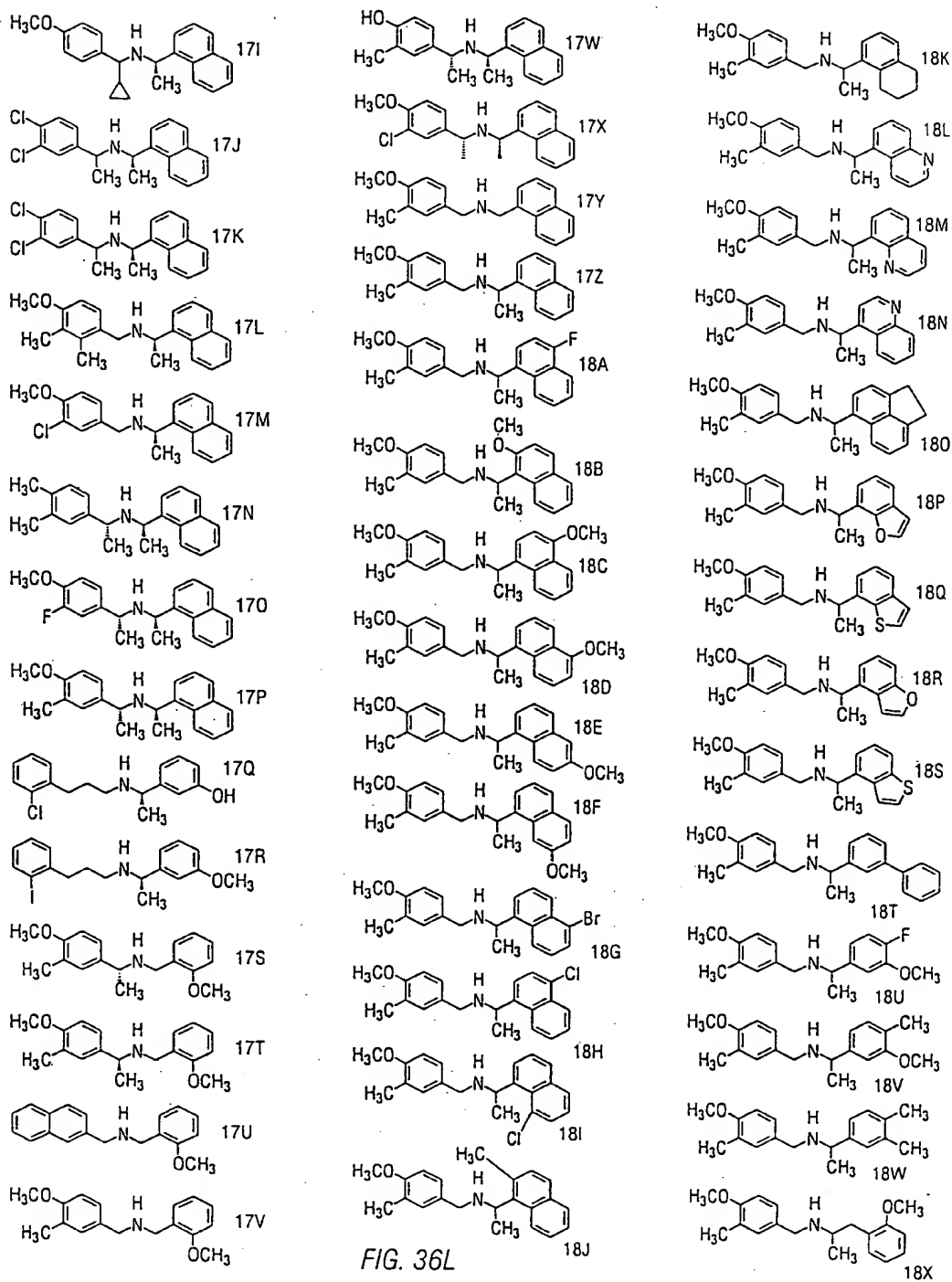


FIG. 36L

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57/85

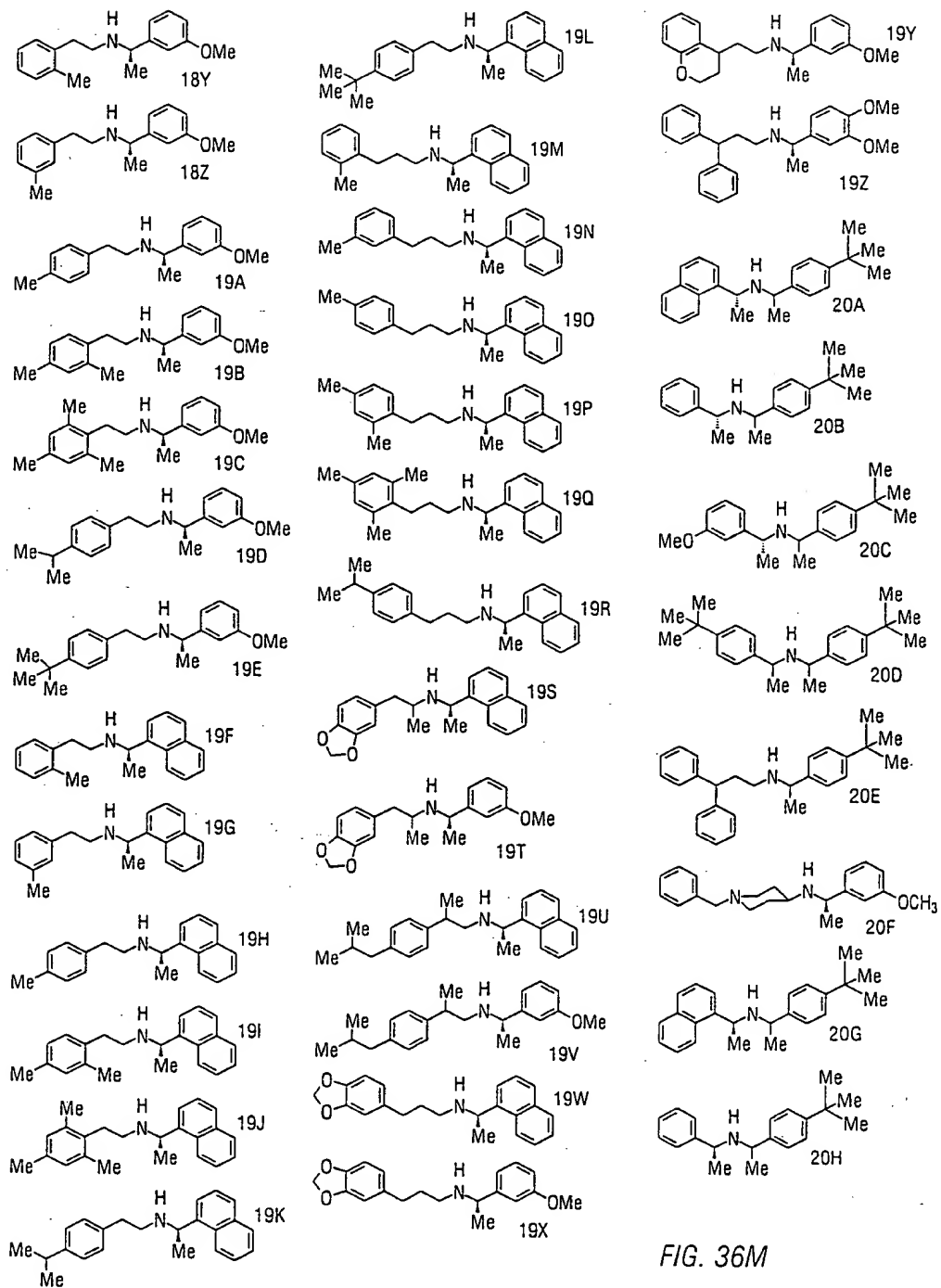


FIG. 36M

58/85

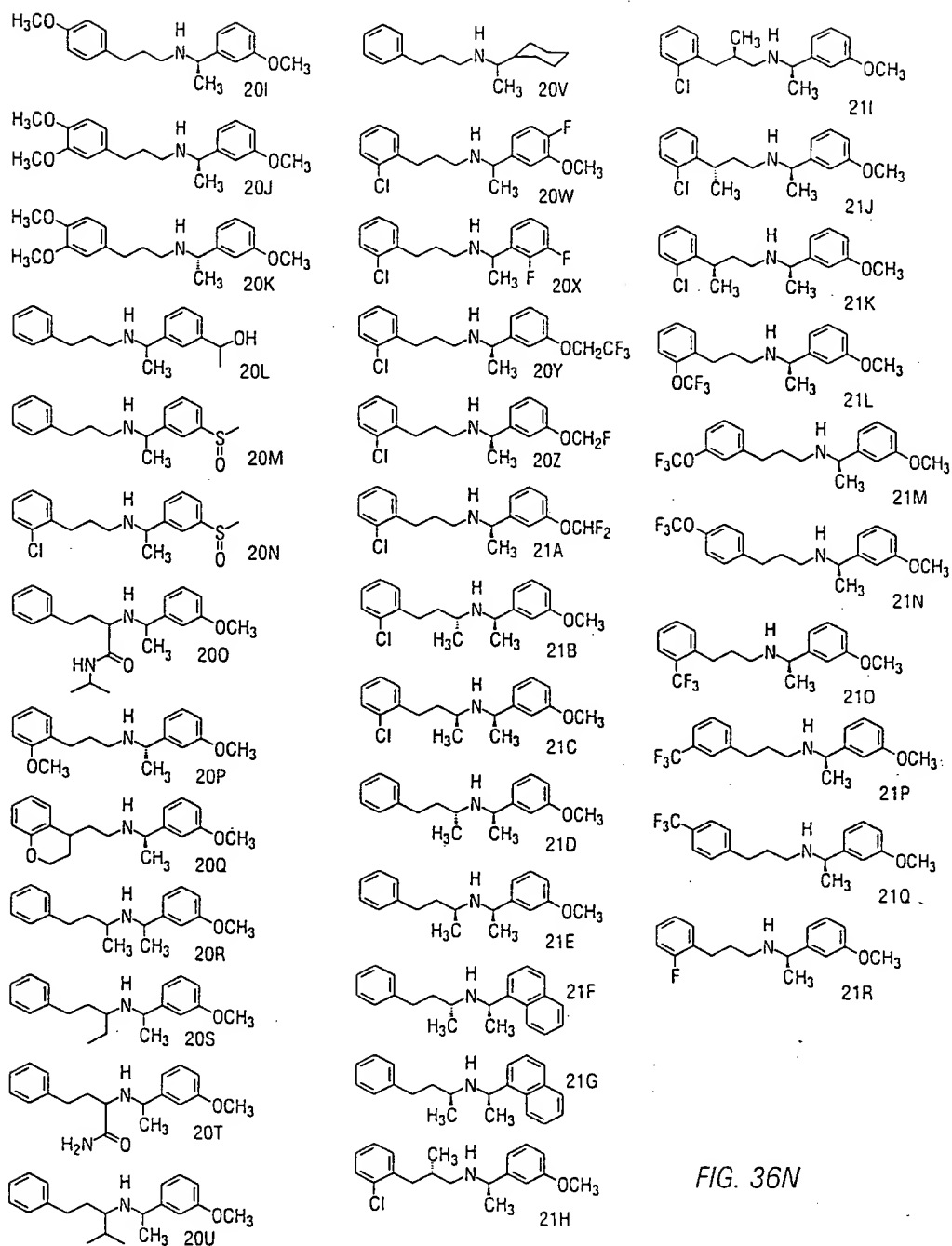


FIG. 36N



59/85

FIG. 37a.

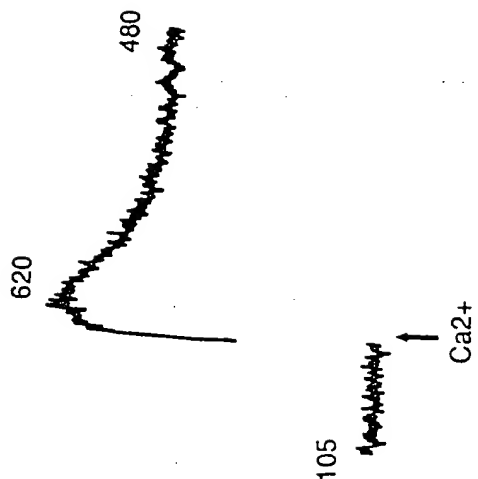
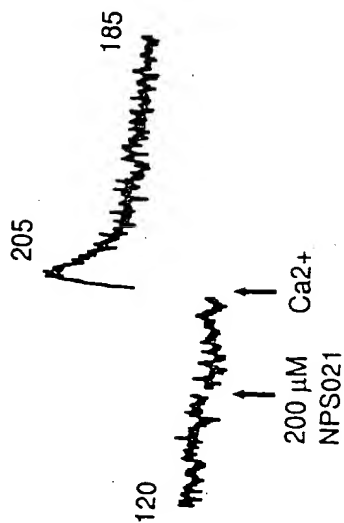


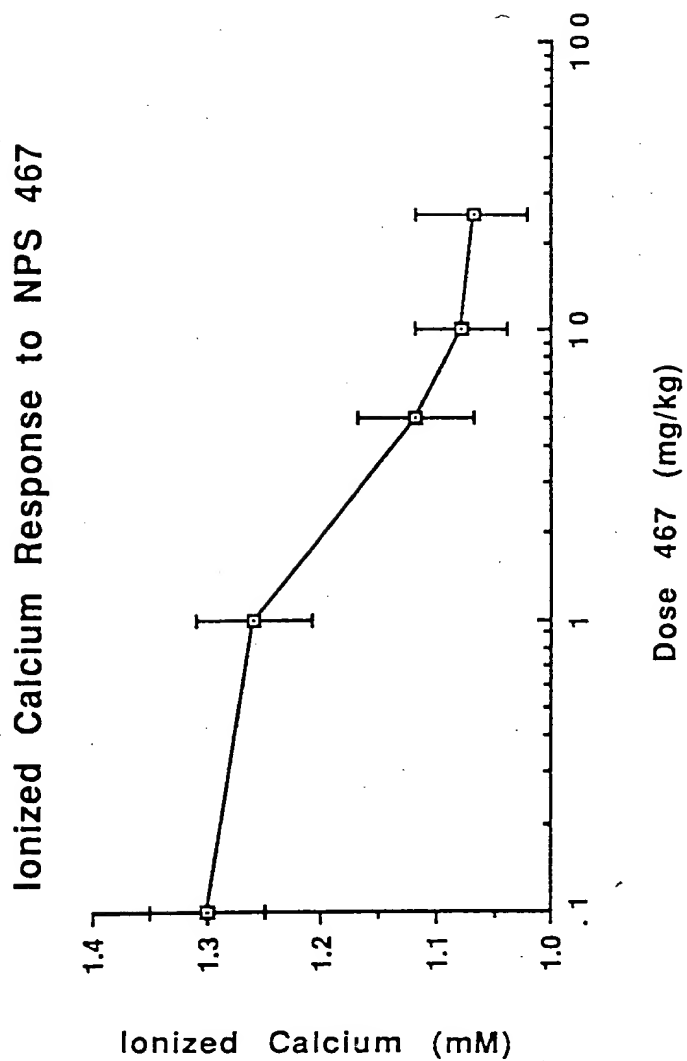
FIG. 37b.





60/85

FIG. 38.





61/85

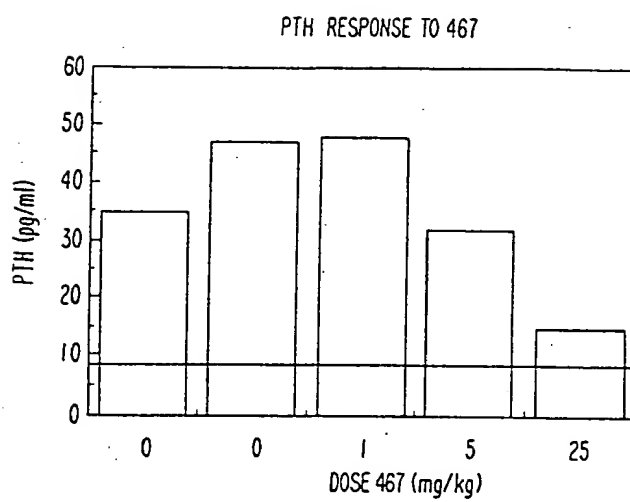
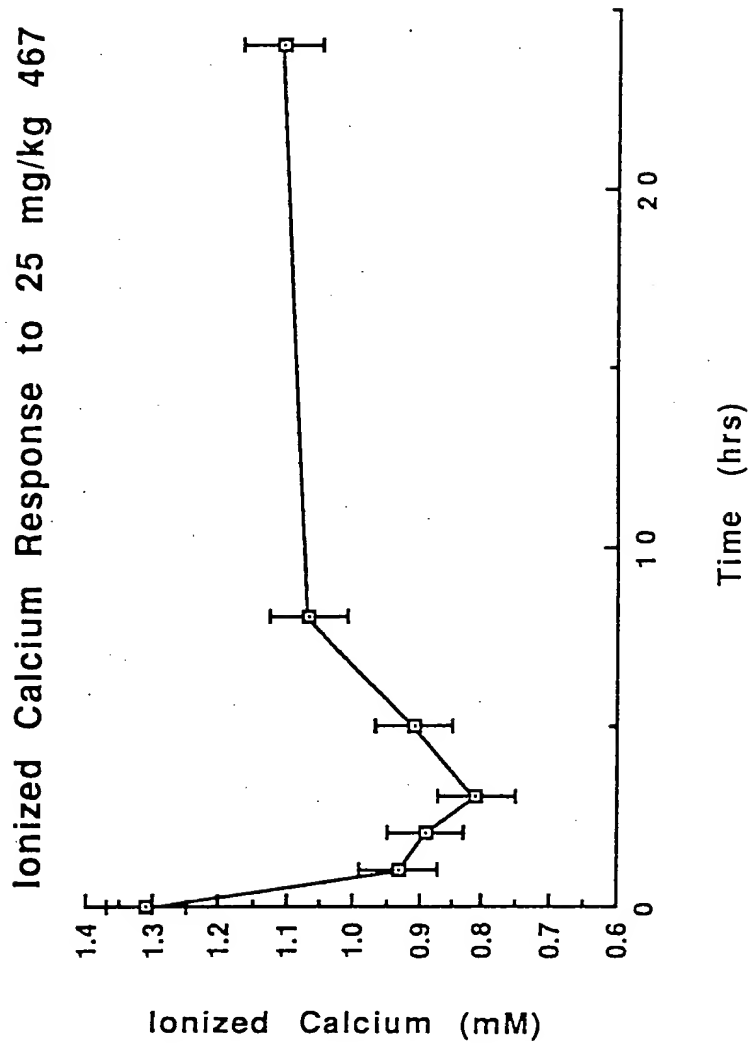


FIG. 39.



62/85

FIG. 40.



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MAY 14 2003
TECH CENTER 1600/2900



63/85

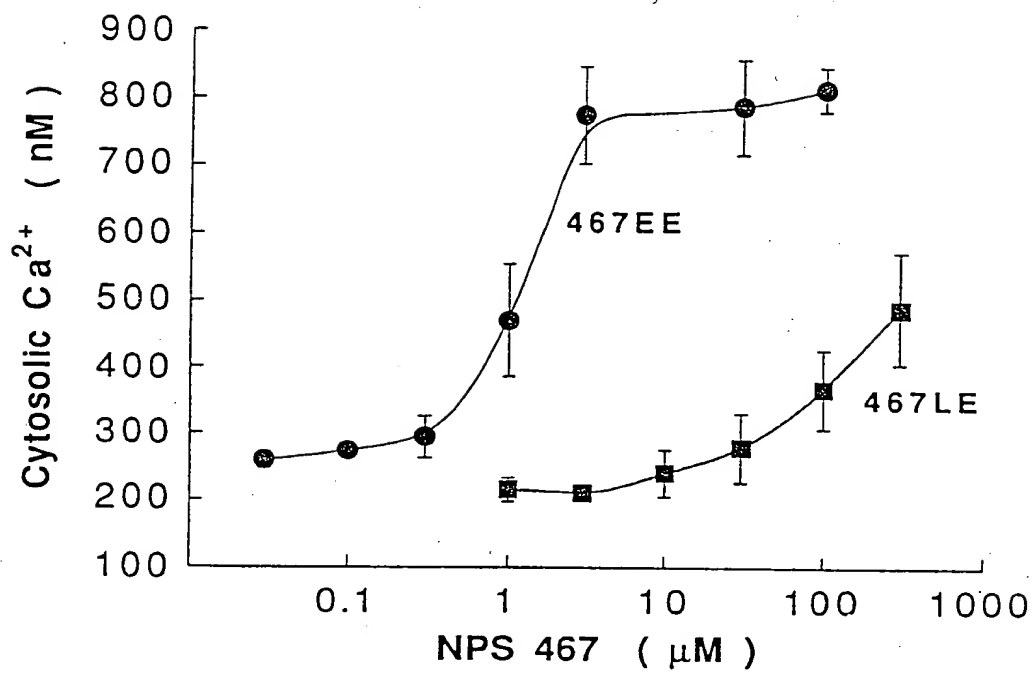


FIG. 41.

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TECH CENTER 1600/2900



64/85

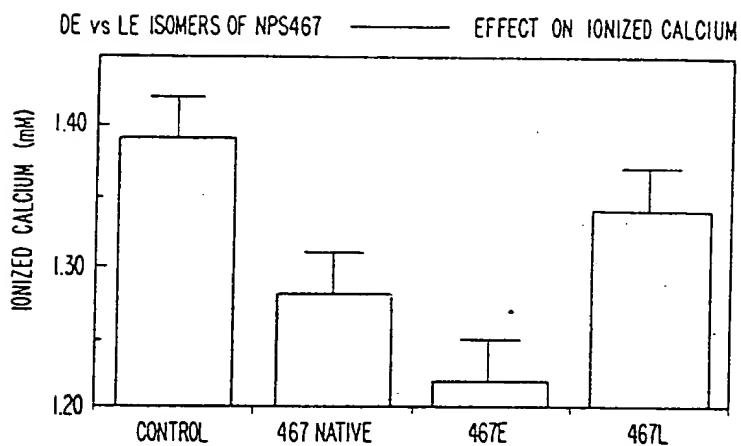
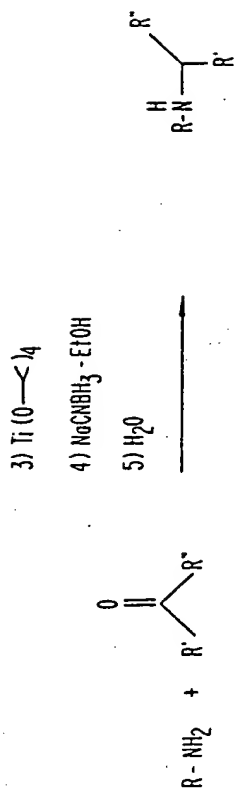


FIG. 42.



65/85

FIG. 43a.

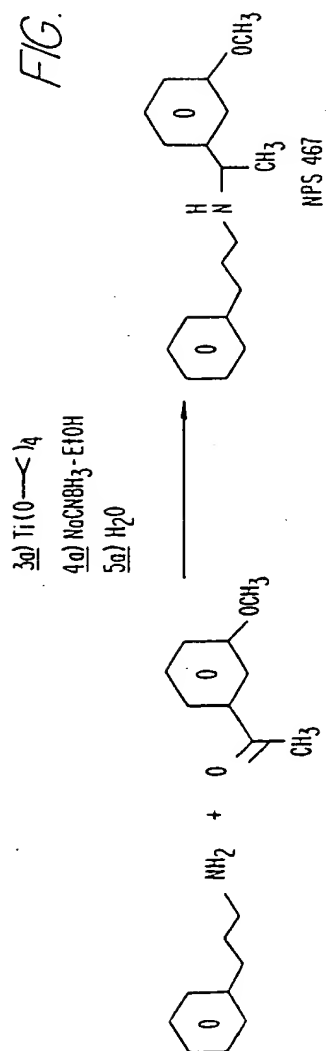


1

2

6

FIG. 43b.



1a

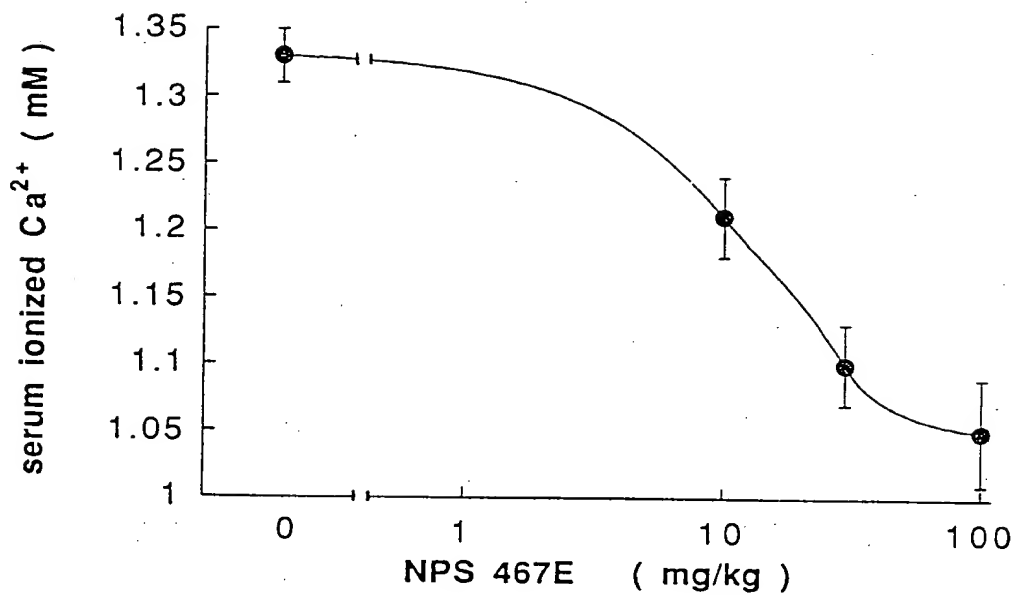
2a

6a



66/85

FIG. 44.

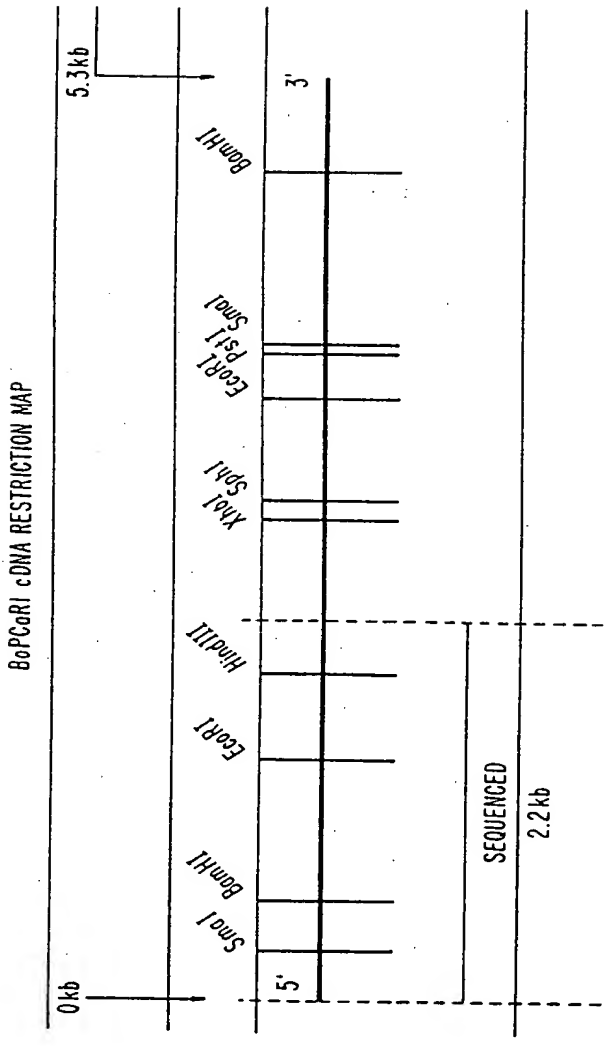


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MAY 14 2003
TECH CENTER 1600/2900



67/85

FIG. 45.





68/85

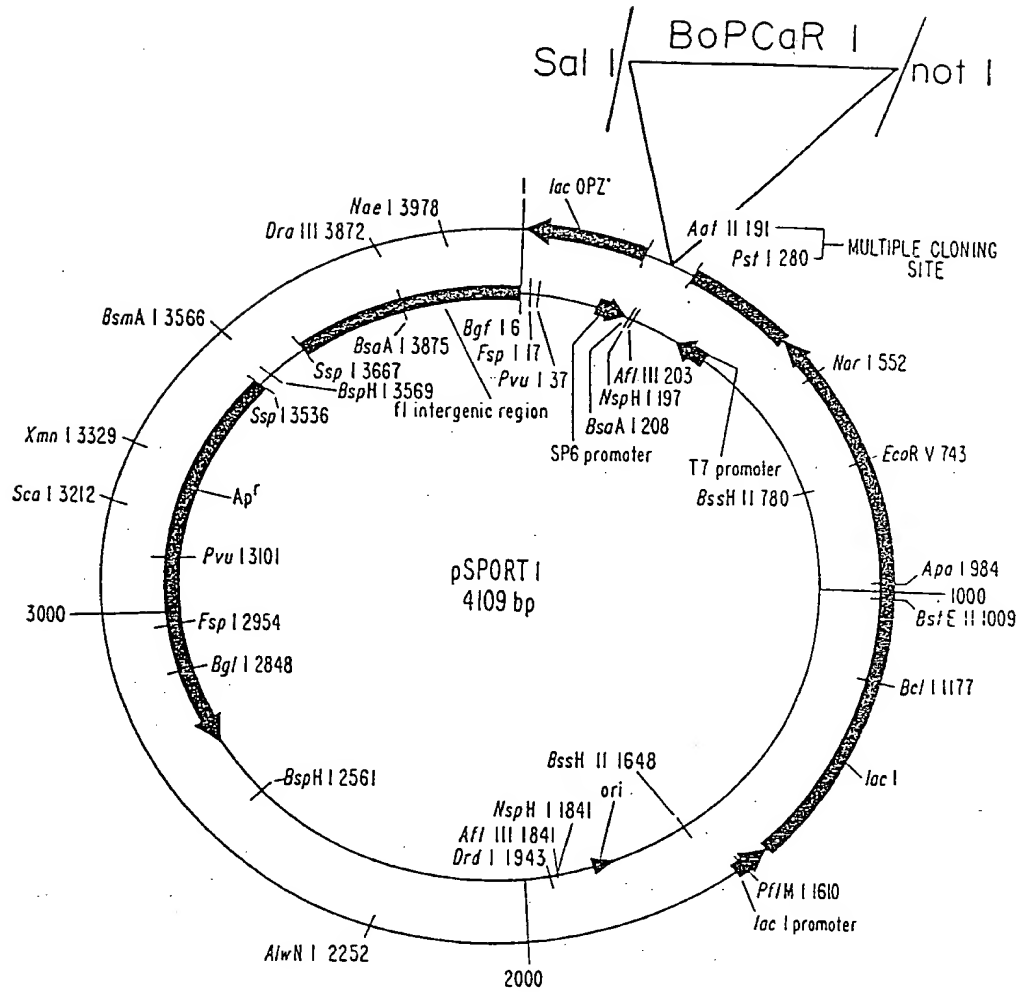


FIG. 46.



69/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CGGAAAAAAAAAAAAAGTTCCCCACTCTAGTACAGAGAAGGTTGGCAGAGTCGTAAGCCCCCAACCTCTTAAACT							75
TCTCTGCATCTCCAAGGAGAAGGAGGGAAGAGGGGTTCTTTCCGACCTGAGGAGCTGGATCTGGGGTCCGAGAAC							150
CCCAAGGTAGCACCGGAAAGAACAGCACAGGAGGCGAGAGCGTGGCCGGTGGCCGGGAGAACAGACCCGACGCG							225
CGGTCTCGGCCCGGGGTCCCGGGGACTCAGCTCAGCACGACTGGGAAGCCGAAAGTACTACACACGGTCTCTG							300
CATGATGTGACTTCTGAAGACTCAAGAGCCACCCACTTCACTAGTCTGCAATGGAGAAGGCAGAAATGGAAAGTC							375
AAACCCACGGTTCATTCTATTAATCTGTAGACATGTCCCCCACTGCAGGGAGTGAGTCGCACCAAGGGGA							450
AAGTCTCAGGGGCCCCCAGACCACCAGCGCTTGAGTCCCTCTTCTCGAGAGAAAGCAGAACTATGGCACTTTA							525
							MetAlaLeuTy
TAGCTGCTGTGGATCTCTTGGCTTTTCTACCTGGTGCACCTTCGCGCTATGGGCTGACCAGCGAGCCAAAA							600
rSerCysCysTrpIleLeuLeuAlaPheSerThrTrpCysThrSerAlaTyrGlyProAspGlnArgAlaGlnLy							
GAAAGGGGACATTATCTCGGGGGGCTCTTCTTATTCATTTTGGGGTTGCAGTGAAAGATCAGGATCTAAAGTC							675
sLysGlyAspIleIleLeuGlyGlyLeuPheProIleHisPheGlyValAlaValLysAspGlnAspLeuLysSe							
GAGGCCGGAGTCCGTGGAGTGATCAGGTATAATTTCCGAGGATTTGCGTGGTTACAAGCTATGATATTTGCCAT							750
rArgProGluSerValGluCysIleArgTyrAsnPheArgGlyPheArgTrpLeuGlnAlaMetIlePheAlaIl							
AGAGGAAATAACAGCAGTCCAGCCCTTCTTCCCAACATGACCTGGGATACAGGATATTCGACACTTGTAAACAC							825
eGluGluIleAsnSerSerProAlaLeuLeuProAsnMetThrLeuGlyTyrArgIlePheAspThrCysAsnTh							
CGTCTCTAAAGCCTTGGAGGCCACCTGAGTTTGTGGCCAGAACAAAATTGACTCTTGAACCTTGATGAGTT							900
rValSerLysAlaLeuGluAlaThrLeuSerPheValAlaGlnAsnLysIleAspSerLeuAsnLeuAspGluPh							
CTGCAACTGCTCAGAGCACATCCCCTCTACCATCGCAGTGGTGGGAGCTACTGGCTCGGGCATCTCCACAGCAGT							975
eCysAsnCysSerGluHisIleProSerThrIleAlaValValGlyAlaThrGlySerGlyIleSerThrAlaVa							
GGCCAACCTGCTGGGGCTCTTCTACATCCCCAGGTCAGCTATGCCCTCTCCAGCAGACTCCTCAGCAACAAGAA							1050
lAlaAsnLeuLeuGlyLeuPheTyrIleProGlnValSerTyrAlaSerSerSerArgLeuLeuSerAsnLysAs							
TCAATTCAAGTCCTTCTCCGCACCATACCCAATGATGAACACCAGGCCACGGCCATGGCTGACATCATCGAGTA							1125
nGlnPheLysSerPheLeuArgThrIleProAsnAspGluHisGlnAlaThrAlaMetAlaAspIleIleGluTy							
CTTCCGCTGGAACCTGGGTGGGCACAATTGCAGCTGACGATGACTATGGCCGGCCAGGGATCGAGAAGTTTCGAGA							1200
rPheArgTrpAsnTrpValGlyThrIleAlaAlaAspAspAspTyrGlyArgProGlyIleGluLysPheArgGl							
GGAAGCTGAGGAGAGGGACATCTGCATCGACTTCAGCGAGCTCATCTCCCAATACTCTGATGAGGAAAAGATCCA							1275
uGluAlaGluGluArgAspIleCysIleAspPheSerGluLeuIleSerGlnTyrSerAspGluGluLysIleGl							
GCAGGTGGTGGAGGTGATCCAGAATTCCACGCCAAAGTCATTGTGCTCTTCTCCAGCGGCCAGACCTGGAACC							1350
nGlnValValGluValIleGlnAsnSerThrAlaLysValIleValValPheSerSerGlyProAspLeuGluPr							

FIG. 47a.

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MAY 14 2003
TECH CENTER 1600/2900



70/85

10	20	30	40	50	60	70	
12345678901234567890123456789012345678901234567890123456789012345							
CCTCATCAAGAGATCGTCCGGCGCAATATCACAGGCAGGATCTGGCTGGCCAGCGAGGCCCTGGGCCAGCTCTTC							1425
oLeuIleLysGluIleValArgArgAsnIleThrGlyArgIleTrpLeuAlaSerGluAlaTrpAlaSerSerSe							
CCTGATTGCTATGCCCCAGTATTTCCATGTGGTCGGAGGCACCATTTGGGTTTGGTTTGAAAGCTGGGCAGATCCC							1500
rLeuIleAlaMetProGluTyrPheHisValValGlyGlyThrIleGlyPheGlyLeuLysAlaGlyGlnIlePr							
AGGCTTCCGGGAATTCCTGCAGAAAGTCCACCCAGGAAGTCTGTCCACAATGGTTTTGCCAAGGAGTTTTGGGA							1575
oGlyPheArgGluPheLeuGlnLysValHisProArgLysSerValHisAsnGlyPheAlaLysGluPheTrpGl							
AGAAACATTTAACTGCCACCTGCAAGAGGGTGCTAAAGGCCCATACCGGTGGACACCTTCCTGAGAGGTACGGA							1650
uGluThrPheAsnCysHisLeuGlnGluGlyAlaLysGlyProLeuProValAspThrPheLeuArgGlyHisGl							
AGAAGGAGGTGCCAGGTTAAGCAACAGTCCCACTGCCTTCCGACCTCTGTGCACTGGGGAGGAGAATCAGCAG							1725
uGluGlyGlyAlaArgLeuSerAsnSerProThrAlaPheArgProLeuCysThrGlyGluGluAsnIleSerSe							
TGTCGAGACTCCTTACATGGATTATACACATTTACGGATATCTACAACGTCTACTTAGCCGTCTACTCCATTGC							1800
rValGluThrProTyrMetAspTyrThrHisLeuArgIleSerTyrAsnValTyrLeuAlaValTyrSerIleAl							
TCATGCCCTACAAGATATATACACCTGCATACCTGGGAGAGGGCTCTTCACCAACGGTTCTCGCGCATATCAA							1875
aHisAlaLeuGlnAspIleTyrThrCysIleProGlyArgGlyLeuPheThrAsnGlySerCysAlaAspIleLy							
GAAGGTTGAAGCTTGGCAGGTCCTGAAACACCTGCGGCACCTAAATTTTACCAGCAATATGGGGAGCAAGTAAC							1950
sLysValGluAlaTrpGlnValLeuLysHisLeuArgHisLeuAsnPheThrSerAsnMetGlyGluGlnValTh							
TTTCGATGAATGTGGAGACCTGGCAGGGAATTTCCATCATCAACTGGCACCTCTCCCCAGAGGACGGCTCCAT							2025
rPheAspGluCysGlyAspLeuAlaGlyAsnTyrSerIleIleAsnTrpHisLeuSerProGluAspGlySerIl							
AGTGTTTAAGGAAGTTGGATATTACAATGTCTATGCCAAGAAAGGAGAGAGACTCTTCATCAATGATGAAAAAT							2100
eValPheLysGluValGlyTyrTyrAsnValTyrAlaLysLysGlyGluArgLeuPheIleAsnAspGluLysIl							
TCTGTGGAGTGGATTCTCAAGGGAGGTGCCTTTCTCCAAGTGCAGTGCAGACTGCCTGGCAGGGACCAGGAAAGG							2175
eLeuTrpSerGlyPheSerArgGluValProPheSerAsnCysSerArgAspCysLeuAlaGlyThrArgLysGl							
AATCATTGAGGGGGAGCCCACTGCTGCTTTGAGTGTGTGGAATGTCTGATGGGGAGTACAGCGACGAGACAGA							2250
yIleIleGluGlyGluProThrCysCysPheGluCysValGluCysProAspGlyGluTyrSerAspGluThrAs							
TGCAAGTGCCTGTGATAAGTGCCCTGATGACTTCTGGTCCAATGAGAACCACACTTCTGCATCGCCAAGGAGAT							2325
pAlaSerAlaCysAspLysCysProAspAspPheTrpSerAsnGluAsnHisThrSerCysIleAlaLysGluIl							
CGAGTTTCTGTCTGGACCGAGCCCTTCGGGATCGCACTCAGCTCTTTGCTGTGCTGGGCATTTTCCTCACAGC							2400
eGluPheLeuSerTrpThrGluProPheGlyIleAlaLeuThrLeuPheAlaValLeuGlyIlePheLeuThrAl							
CTTCGTGCTGGGCGTCTTCATCAAGTTCCGCAACACGCCCATCGTCAAGGCCACCAACCGGGAGCTCTCCTATCT							2475
aPheValLeuGlyValPheIleLysPheArgAsnThrProIleValLysAlaThrAsnArgGluLeuSerTyrLe							
CCTTCTCTTCTCCCTGCTGCTGCTTCTCCAGCTCCCTGTTCTTCATCGGGGAGCCCCAGGACTGGACGTGCCG							2550
uLeuLeuPheSerLeuLeuCysCysPheSerSerSerLeuPhePheIleGlyGluProGlnAspTrpThrCysAr							
CCTGCCCGAGCCGGCCTTTGGCATCAGCTTCTGTGCTGTGCATCTCGTGCATCCTGGTGAAAACCAATCGGGTCT							2625
gLeuArgGlnProAlaPheGlyIleSerPheValLeuCysIleSerCysIleLeuValLysThrAsnArgValLe							
CCTGGTGTGTTGAGGCCAAGATTCCACAGCTTCCACCGGAAGTGGTGGGGCTCAACCTGCAGTTCTGTGCTGGT							2700
uLeuValPheGluAlaLysIleProThrSerPheHisArgLysTrpTrpGlyLeuAsnLeuGlnPheLeuLeuVa							

FIG. 47b.



71/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CTTCCTCTGCACCTTCATGCAGATTGTCATCTGTGCCATTTGGCTCAATACAGCGCCCCCTCGAGCTACCGCAA							2775
lPheLeuCysThrPheMetGlnIleValIleCysAlaIleTrpLeuAsnThrAlaProProSerSerTyrArgAs							
CCACGAGCTGGAGGACGAGATCATCTTCATCACCTGCCACGAGGGCTCGCTCATGGCGCTGGGCTTCCTGATCGG							2850
nHisGluLeuGluAspGluIleIlePheIleThrCysHisGluGlySerLeuMetAlaLeuGlyPheLeuIleGl							
CTACACCTGCTGTGGCCGCCATCTGCTTCTTCTTCGCCCTTCAAGTCCCGAAGCTGCCAGAGAACTTCAATGA							2925
yTyrThrCysLeuLeuAlaAlaIleCysPhePhePheAlaPheLysSerArgLysLeuProGluAsnPheAsnGl							
AGCCAAGTTCATCACCTTCAGCATGCTCATCTTCTTCATCGTCTGGATCTCTTTCATCCCCGCTACGCCAGCAC							3000
uAlaLysPheIleThrPheSerMetLeuIlePhePheIleValTrpIleSerPheIleProAlaTyrAlaSerTh							
TTACGGCAAGTTCGTCTCTGCCGTGGAGGTGATCGCCATCTGGCGGCCAGCTTTGGCTTGCTGGCCTGTATCTT							3075
rTyrGlyLysPheValSerAlaValGluValIleAlaIleLeuAlaAlaSerPheGlyLeuLeuAlaCysIlePh							
CTTCAACAAGGTCTACATCATCTCTTCAAGCCTTCCCGGAACACCATCGAGGAGGTGCGCTGCAGCACCGCGGC							3150
ePheAsnLysValTyrIleIleLeuPheLysProSerArgAsnThrIleGluGluValArgCysSerThrAlaAl							
ACACGCCTTCAAGGTGGCCGCCGAGCCACGCTGCGCCGAGCAACGTCTCCCGCCAGCGGTCCAGCAGCCTAGG							3225
aHisAlaPheLysValAlaAlaArgAlaThrLeuArgArgSerAsnValSerArgGlnArgSerSerSerLeuGl							
GGGCTCCACGGGATCCACCCCTCCTCCTCCATCAGCAGCAAGAGCAACAGCGAGGACCCGTTCCCTCAGCAGCA							3300
yGlySerThrGlySerThrProSerSerSerIleSerSerLysSerAsnSerGluAspProPheProGlnGlnGl							
GCCGAAGAGGCAGAAAGCAGCCGAGCCGCTGGCCCTGAGCCCGCACACGCGCAGCAGCCACAGCCGCGGCCACC							3375
nProLysArgGlnLysGlnProGlnProLeuAlaLeuSerProHisAsnAlaGlnGlnProGlnProArgProPr							
CTCGACCCACAGCCGAGCCACAGTGCAGCAGCCGCCCCGATGCAAGCAGAAGGTCATCTTCGGCAGCGGCAC							3450
oSerThrProGlnProGlnProGlnSerGlnGlnProProArgCysLysGlnLysValIlePheGlySerGlyTh							
CGTCACCTTCTCGCTGAGCTTTGACGAGCCTCAGAAGACCGCGTGGCTCACAGGAATTCACGCACCAGACCTC							3525
rValThrPheSerLeuSerPheAspGluProGlnLysThrAlaValAlaHisArgAsnSerThrHisGlnThrSe							
CCTGGAGGCCAGAAAAACAATGACGCCCTGACCAAAACACGAGCGTTGCTCCCGCTGCAGTGGGAGAGACGGA							3600
rLeuGluAlaGlnLysAsnAsnAspAlaLeuThrLysHisGlnAlaLeuLeuProLeuGlnCysGlyGluThrAs							
CTCAGAATTGACCTCCAGGAGACAGGCCTGCAGGGCCCTGTGGGTGAGGACCACCAGCTAGAGATGGAGGACCC							3675
pSerGluLeuThrSerGlnGluThrGlyLeuGlnGlyProValGlyGluAspHisGlnLeuGluMetGluAspPr							
CGAAGAGATGTCCCGGCACTGTAGTGTCTAATTCGCGAGCTTTGTTCATCAGTGGCGGAGGCAGCACTGTTAC							3750
oGluGluMetSerProAlaLeuValValSerAsnSerArgSerPheValIleSerGlyGlyGlySerThrValTh							
GGAAAACATGCTGCGTTCTTAAAGGGAAGGAGAAAGCCAGTTCAGGGGAATCCAGGCAGTTTCCCGGGATGA							3825
rGluAsnMetLeuArgSer							
CCTTCTCCAAAGGATGAGGAACTGCCCCCCCCACCCCCACCCCTTCTCCAGGAAGGAGGGATAAGACCCACCA							3900
AATGCTTGGAACCTTAGTTGCACTGCTATAAACGACAGTGAATGAAATAATGTCCCCCTTAAATTTAAAGAGGG							3975
GAGCGGTGTGCTTCTGTGGTTAGGTTTATCAGAGTGTGAGATCCCTATAGTCAGGTTTCGCTTTCCTATCCCTG							4050

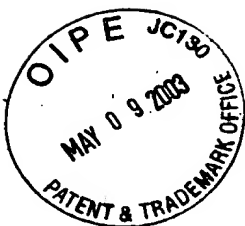
FIG. 47c.



72/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CTTCCATTCTCCTCTCTGTCTATCCCATCCAACAGTCCAGAGATAAAACCATGGCTTTAAGATACCCACCTAT							4125
TCCCCCTAGGGTCTTATTTGTGTGTTTTGTGTGCTGTGTTTTGGTTTGATTTTTGTTTTTAATGTTGAAACGTCT							4200
GCCCTGAACCTTGCAGACAGCCTGGTCCAAAAACAACTGTGCAGAGTGACAGGACCTCCTATGGGCACCACTA							4275
GAGTTGAGTGCAGAAAGACAGAATGTCGCCAGCGCTGCCAACACCTTGACAGTGGGAAGAACTTGAAATGTCCAG							4350
AGCTGTAAGATGAATGTGTCCCTCCTATTTATGAAAAATGTTAAATATGTGGTTTCCTACTTGCTGCTGTCTGTC							4425
ACGTGACATGGAGAAGGTTAGCATCCATCCTCCAGCAGTATGTCTGATCTTGTCCAGAGTGTGATGGTGATGCCA							4500
CGTTTAGATTCCAATATCTCAGGAATCACCTCAGCCTGCATGAATCCAATGAGCTGTATCTGTAATTAATATTGT							4575
CATATGTAGCTTTATCCTTAAGAAAAATGTGTTTGTGTTTTAATAGTCCGTGGAAAAATATAAGCTGAAAAAATGTCC							4650
CAGTCTGGTTGATATAAGGCAGTATTATTGAGTCCCGTTTTCTTTGCCCGCCCCACCACCCACACCCCAATGAGC							4725
TAAGCCCTAAATGAGCCCTTTCAGGGCCAGGGATCCAGAAGCTCCCTCTTTCTCCACCCCAAACGCTTCCTGAA							4800
GTCAGATCCATGCCTTTCCCTGTGAAGAATAAGCTCCAGTCTCTGACCTCCTACCAGTTTCTGGGGTAAGAACA							4875
CGTGGTTCCAAGAGAGCTCTCATGGGATATTACTCTTGGCACCCCCCAATGCCATACTTAGGTTCCCTCCAGCAG							4950
TGGGATCTGCCCATGGGTAGTTACAAGATTGAACGTTGAATGGCATACTGCTGAACAGTCAGTTCTGGAGCTAGA							5025
GAGGCCTGGGGTCAAGTGCTGGGTTTGTCACTCACAAAGTTGGGTGACCACAGGCAGGGAACCTTGACCTCACTCA							5100
GCCCCAGCTTCTTTGTGTCTAAAAATGGAGGTAATAATCATCCTTTTCCCGCAGAGCTCTTATGTGGGTTAAATGA							5175
GATAAATGTATGTAAAGTATTTTAGCATGGTGCCTAGCCCATAGTAAGCACGCAATAAATATTAGTTAATATTAA							5250
AAAAAAAAAAAAAAAAAAAAAAAAA							5275

FIG. 47d.



73/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
GCTGCTGTGGCCGGACCCGAAGCGGGCGCCGGGAGCGCAGCGAGCCAGACGCGCTCTCCAAGACCGTGACCTT							75
GGCATAGGGAGCGGGGCTGCGCGCAGTCTGAGATCAGACCAGAGCTCATCCTCGTGAGACCCACGGCCGAGGG							150
GCCGGAGCTGCCTCTGTGCGAGGGAGCCCTGGCCGCGCGCAGAAGGCATCACAGGAGGCTCTGCATGATGTGG							225
CTTCCAAGACTCAAGGACCACCCACATTACAAGTCTGGATTGAGGAAGGCAGAAATGGAGATTCAAACACCACG							300
TCTTCTATTATTTTATTAATCAATCTGTAGACATGTGTCCCACTGCAGGGAGTGAAGTCTCCAAGGGAGAAAC							375
TTCTGGGAGCTCCAAGTCTTAGCTGTCTCATCCCTTGCCCTGGAGAGACGGCAGAACCATGGCATTATATAGC MetAlaPheTyrSer							450
TGCTGCTGGGTCTCTTGGCACTCACCTGGCACACCTCTGCCTACGGGCCAGACCAGCGAGCCAAAAGAAGGGG CysCysTrpValLeuLeuAlaLeuThrTrpHisThrSerAlaTyrGlyProAspGlnArgAlaGlnLysLysGly							525
GACATTATCTTGGGGGCTCTTTCTATTTCATTTTGGAGTAGCAGCTAAAGATCAAGATCTCAAATCAAGGCCG AspIleIleLeuGlyGlyLeuPheProIleHisPheGlyValAlaAlaLysAspGlnAspLeuLysSerArgPro							600
GAGTCTGTGGAATGTATCAGGTATAATTTCCGTGGGTTTCGCTGGTTACAGGCTATGATATTTGCCATAGAGGAG GluSerValGluCysIleArgTyrAsnPheArgGlyPheArgTrpLeuGlnAlaMetIlePheAlaIleGluGlu							675
ATAACAGCAGCCAGCCCTTCTTCCCACTTGACGCTGGGATACAGGATATTTGACACTTGCAACACCGTTTCT IleAsnSerSerProAlaLeuLeuProAsnLeuThrLeuGlyTyrArgIlePheAspThrCysAsnThrValSer							750
AAGCCTTGGAAGCCACCCTGAGTTTGTGTGCTCAAAACAAAATTGATTCTTTGAACCTTGATGAGTTCTGCAAC LysAlaLeuGluAlaThrLeuSerPheValAlaGlnAsnLysIleAspSerLeuAsnLeuAspGluPheCysAsn							825
TGCTCAGAGCACATTCCCTCTACGATTGCTGTGGTGGGAGCAACTGGCTCAGGCGTCTCCACGGCAGTGCCAAAT CysSerGluHisIleProSerThrIleAlaValValGlyAlaThrGlySerGlyValSerThrAlaValAlaAsn							900
CTGCTGGGGCTCTTCTACATTCCTCCAGGTCAGTTATGCCTCCTCCAGCAGACTCCTCAGCAACAAGAATCAATTC LeuLeuGlyLeuPheTyrIleProGlnValSerTyrAlaSerSerSerArgLeuLeuSerAsnLysAsnGlnPhe							975
AAGTCTTTCCTCCGAACCATCCCAATGATGAGCACCAGGCCACTGCCATGGCAGACATCATCGAGTATTTCCGC LysSerPheLeuArgThrIleProAsnAspGluHisGlnAlaThrAlaMetAlaAspIleIleGluTyrPheArg							1050
TGGAAGTGGGTGGGCACAATTGCAGCTGATGACGACTATGGCGGCCCGGGATTGAGAAATTCGAGAGGAAGCT TrpAsnTrpValGlyThrIleAlaAlaAspAspAspTyrGlyArgProGlyIleGluLysPheArgGluGluAla							1125
GAGGAAGGGGATATTCGATCGACTTCAGTGAAGTCACTCTCCAGTACTCTGATGAGGAAGAGATCCAGCATGTG GluGluArgAspIleCysIleAspPheSerGluLeuIleSerGlnTyrSerAspGluGluGluIleGlnHisVal							1200
GTAGAGGTGATTCAAAATTCACGGCCAAAGTCATCGTGGTTTTCTCCAGTGGCCAGATCTTGAGCCCTCATC ValGluValIleGlnAsnSerThrAlaLysValIleValValPheSerSerGlyProAspLeuGluProLeuIle							1275
AAGGAGATTGTCCGGCGCAATATCACGGGCAAGATCTGGCTGGCCAGCGAGGCTGGGCCAGCTCTCCCTGATC LysGluIleValArgArgAsnIleThrGlyLysIleTrpLeuAlaSerGluAlaTrpAlaSerSerSerLeuIle							1350

FIG. 48a.



74/85

10	20	30	40	50	60	70	
12345678901234567890123456789012345678901234567890123456789012345							
GCCATGCCTCAGTACTTCCACGTGGTTGGCGGCACCATTTGGATTGCTCTGAAGGCTGGGCAGATCCCAGGCTTC							1425
AlaMetProGlnTyrPheHisValValGlyGlyThrIleGlyPheAlaLeuLysAlaGlyGlnIleProGlyPhe							
CGGGAATTCCTGAAGAAGTCCATCCCAGGAAGTCTGTCCACAATGGTTTGGCCAAGGAGTTTGGGAAGAAACA							1500
ArgGluPheLeuLysLysValHisProArgLysSerValHisAsnGlyPheAlaLysGluPheTrpGluGluThr							
TTTAAGTCCACCTCCAAGAAGGTGCAAAAGGACCTTTACCTGTGGACACCTTTCTGAGAGGTCACGAAGAAAGT							1575
PheAsnCysHisLeuGlnGluGlyAlaLysGlyProLeuProValAspThrPheLeuArgGlyHisGluGluSer							
GGCGACAGGTTTAGCAACAGCTCGACAGCCTTCCGACCCCTCTGTACAGGGGATGAGAATCAGCAGTGTGCGAG							1650
GlyAspArgPheSerAsnSerSerThrAlaPheArgProLeuCysThrGlyAspGluAsnIleSerSerValGlu							
ACCCCTTAGATAGATTACACGCATTTACGGATATCCTACAATGTGTACTTAGCAGTCTACTCCATTGCCACGCC							1725
ThrProTyrIleAspTyrThrHisLeuArgIleSerTyrAsnValTyrLeuAlaValTyrSerIleAlaHisAla							
TTGCAAGATATATATACCTGCTTACCTGGGAGAGGGCTCTTACCAATGGCTCTGTGCAGACATCAAGAAAGTT							1800
LeuGlnAspIleTyrThrCysLeuProGlyArgGlyLeuPheThrAsnGlySerCysAlaAspIleLysLysVal							
GAGGCGTGGCAGGTCCTGAAGCACCTACGGCATCTAAACTTTACAAACAATATGGGGAGCAGGTGACCTTTGAT							1875
GluAlaTrpGlnValLeuLysHisLeuArgHisLeuAsnPheThrAsnAsnMetGlyGluGlnValThrPheAsp							
GAGTGTGGTGACCTGGTGGGAACTATTCCATCATCAACTGGCACCTCTCCCAGAGGATGGCTCCATCGTGT							1950
GluCysGlyAspLeuValGlyAsnTyrSerIleIleAsnTrpHisLeuSerProGluAspGlySerIleValPhe							
AAGGAAGTCGGGTATTACAACGTCTATGCCAAGAAGGGAGAAAGACTCTTCATCAACGAGGAGAAAATCCTGTGG							2025
LysGluValGlyTyrTyrAsnValTyrAlaLysLysGlyGluArgLeuPheIleAsnGluGluLysIleLeuTrp							
AGTGGGTTCTCCAGGGAGCCACTCACCTTTGTGCTGTCTGTCTCCAGGTGCCCTTCTCCAAGTGCAGCCGAGAC							2100
SerGlyPheSerArgGluProLeuThrPheValLeuSerValLeuGlnValProPheSerAsnCysSerArgAsp							
TGCTTGGCAGGGACCAGGAAAGGGATCATTGAGGGGAGCCACCTGCTGCTTTGAGTGTGTGGAGTGTCTGAT							2175
CysLeuAlaGlyThrArgLysGlyIleIleGluGlyGluProThrCysCysPheGluCysValGluCysProAsp							
GGGGAGTATAGTGATGAGACAGATGCCAGTGCCTGTAACAAGTGCCAGATGACTTCTGGTCCAATGAGAACCAC							2250
GlyGluTyrSerAspGluThrAspAlaSerAlaCysAsnLysCysProAspAspPheTrpSerAsnGluAsnHis							
ACCTCTGCATTGCCAAGGAGATCGAGTTTCTGTGCTGGACGGAGCCCTTTGGGATCGCACTCACCCCTCTTTGCC							2325
ThrSerCysIleAlaLysGluIleGluPheLeuSerTrpThrGluProPheGlyIleAlaLeuThrLeuPheAla							
GTGCTGGGCATTTTCTGACAGCCTTTGTGCTGGGTGTGTTTATCAAGTTCGGCAACACACCCATTGTCAAGGCC							2400
ValLeuGlyIlePheLeuThrAlaPheValLeuGlyValPheIleLysPheArgAsnThrProIleValLysAla							
ACCAACCGAGAGCTCTCTACCTCCTCTCTCTCCCTGCTCTGCTGCTTCTCCAGCTCCCTGTCTTTCATCGGG							2475
ThrAsnArgGluLeuSerTyrLeuLeuLeuPheSerLeuLeuCysCysPheSerSerSerLeuPhePheIleGly							
GAGCCCCAGGACTGGACGTGCCGCCTGCGCCAGCGGCCCTTTGGCATCAGCTTCGTGCTCTGCATCTCATGCATC							2550
GluProGlnAspTrpThrCysArgLeuArgGlnProAlaPheGlyIleSerPheValLeuCysIleSerCysIle							
CTGGTGAAAACCAACCGTGCTCTCTGGTGTGTTGAGGCCAAGATCCCCACCAGCTTCCACCGCAAGTGGTGGGG							2625
LeuValLysThrAsnArgValLeuLeuValPheGluAlaLysIleProThrSerPheHisArgLysTrpTrpGly							
CTCAACCTGCAGTTCCTGCTGGTTTCTCTGCACTTCATGCAGATTGTGATCTGTGTGATCTGGCTCTACACC							2700
LeuAsnLeuGlnPheLeuLeuValPheLeuCysThrPheMetGlnIleValIleCysValIleTrpLeuTyrThr							

FIG. 48b.

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75/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
GCGCCCCCTCAAGCTACCGCAACCAGGAGCTGGAGGATGAGATCATCTTCATCACGTGCCACGAGGGCTCCCTC							2775
AlaProProSerSerTyrArgAsnGlnGluLeuGluAspGluIleIlePheIleThrCysHisGluGlySerLeu							
ATGGCCCTGGGCTTCCTGATCGGCTACACCTGCCTGCTGGCTGCCATCTGCTTCTTCTTTCAGTCCCGG							2850
MetAlaLeuGlyPheLeuIleGlyTyrThrCysLeuLeuAlaAlaIleCysPhePhePheAlaPheLysSerArg							
AAGCTGCCGGAGAACTTCAATGAAGCCAAGTTTCATCACCTTCAGCATGCTCATCTTCTTCATCGTCTGGATCTCC							2925
LysLeuProGluAsnPheAsnGluAlaLysPheIleThrPheSerMetLeuIlePhePheIleValTrpIleSer							
TTCATTCCAGCCTATGCCAGCACCTATGGCAAGTTTGCTCTGCCGTAGAGGTGATTGCCATCCTGGCAGCCAGC							3000
PheIleProAlaTyrAlaSerThrTyrGlyLysPheValSerAlaValGluValIleAlaIleLeuAlaAlaSer							
TTTGGCTTGCTGGCGTGCATCTTCTTCAACAAGATCTACATCATCTCTTCAAGCCATCCCGCAACACCATCGAG							3075
PheGlyLeuLeuAlaCysIlePhePheAsnLysIleTyrIleIleLeuPheLysProSerArgAsnThrIleGlu							
GAGGTGCGTTGCAGCACCGCAGCTCACGCTTTCAAGGTGGCTGCCCGGCCACGCTGCCCGCAGCAACGTCTCC							3150
GluValArgCysSerThrAlaAlaHisAlaPheLysValAlaAlaArgAlaThrLeuArgArgSerAsnValSer							
CGCAAGCGGTCCAGCAGCCTTGGAGGCTCCACGGGATCCACCCCTCCTCCTCCATCAGCAGCAAGAGCAACAGC							3225
ArgLysArgSerSerSerLeuGlyGlySerThrGlySerThrProSerSerSerIleSerSerLysSerAsnSer							
GAAGACCCATTCCACGCGCCGAGAGGCAGAAGCAGCAGCAGCCGCTGGCCCTAACCCAGCAAGAGCAGCAGCAG							3300
GluAspProPheProArgProGluArgGlnLysGlnGlnGlnProLeuAlaLeuThrGlnGlnGluGlnGlnGln							
CAGCCCTGACCCTCCACAGCAGCAACGATCTCAGCAGCAGCCAGATGCAAGCAGAAGGTCATCTTTGGCAGC							3375
GlnProLeuThrLeuProGlnGlnGlnArgSerGlnGlnGlnProArgCysLysGlnLysValIlePheGlySer							
GGCAGGTCACCTTCTCACTGAGCTTTGATGAGCCTCAGAAGAAGCCATGGCCACAGGAATTCTACGCACCAG							3450
GlyThrValThrPheSerLeuSerPheAspGluProGlnLysAsnAlaMetAlaHisArgAsnSerThrHisGln							
AACTCCCTGGAGGCCAGAAAAGCAGCGATACGCTGACCCGACACCCAGCCATTACTCCCGTGCAGTGCAGGGGAA							3525
AsnSerLeuGluAlaGlnLysSerSerAspThrLeuThrArgHisGlnProLeuLeuProLeuGlnCysGlyGlu							
ACGGACTTAGATCTGACCGTCCAGGAACAGGTCTGCAAGGACCTGTGGGTGGAGACCAGCGGCCAGAGGTGGAG							3600
ThrAspLeuAspLeuThrValGlnGluThrGlyLeuGlnGlyProValGlyGlyAspGlnArgProGluValGlu							
GACCCTGAAGAGTTGTCCCCAGCACTTGTAGTGTCCAGTTTCACAGAGCTTTGTTCATCAGTGGTGGAGGCAGCACT							3675
AspProGluGluLeuSerProAlaLeuValValSerSerSerGlnSerPheValIleSerGlyGlyGlySerThr							
GTTACAGAAAACGTAGTGAATTCATAAAATGGAAGGAGAAGACTGGGCTAGGGAGAATGCAGAGAGGTTTCTTGG							3750
ValThrGluAsnValValAsnSer							
GGTCCCAGGGATGAGGAATCGCCCCAGACTCCTTTCTCTGAGGAAGAAGGGATAATAGACACATCAAATGCCCC							3825
GAATTTAGTCACACCATCTTAAATGACAGTGAATTGACCCATGTTCCCTTTAAATTTAAAAAAGAAGAGCCTT							3900
GTGTTTCTGTGGTTGCATTTGTCAAAGCATGAGATCTCCACGGTCAGATTGCTGTTCACCCACATCTAATGTC							3975
TCTTCCTCTGTTCTATCCACCCAACAGCTCAGAGATGAACTATGGCTTTAACTACCCCTCCAGAGTGTGCAGA							4050

FIG. 48c.

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76/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CTGATGGGACATCAAATTTGCCACCACTAGAGCTGAGAGTCTGAAAGACAGAATGTCACCAGTCCTGCCCAATGC							4125
CTTGACAACAGACTGAATTTTAAATGTTCAACAATAAGGAGAATGTATCTCCTCCTATTTATGAAAACCATATG							4200
ATATTTTGTCTCCTACCTGCTGCTGCTATTATGTAACATCCAGAAGGTTTGCACCCCTCCTATACCATATGTCTG							4275
GTTCTGTCCAGGACATGATACTGATGCCATGTTTAGATTCCAGGATCACAAGAATCACCTCAAATTGTTAGGAAG							4350
GGACTGCATAAAACCAATGAGCTGTATCTGTAATTAATATTCTATATGTAGCTTTATCCTTAGGAAAAATGCTTCT							4425
GTTGTAATAGTCCATGGACAATATAAACTGAAAAATGTCAGTCTGGTTTATATAAGGCAGTATTATTGAGCTCTA							4500
TTTCCCCACCCCACTATCCTCACTCCCATAGCTAAGCTAAGCCTTATGTGAGCCCTTCAGGGACTCAAGGGTCCAGAA							4575
GTCCCTCCCATCTCTACCCCAAAGAATTCTGAAGCCAGATCCACCCTATCCCTGTACAGAGTAAGTTCTCAATT							4650
ATTGGCCTGCTAATAGCTGCTAGGGTAGGAAAGCGTGGTTCCAAGAAAGATCCACCCTCAAATGTCGGAGCTATG							4725
TTCCCTCCAGCAGTGGTATTAATACTGCCGGTCACCCAGGCTCTGGAGCCAGAGAGACAGACCGGGTTCAAGCC							4800
ATGGCTTCGTCAATTTGCAAGCTGAGTGACTGTAGGCAGGGAACCTTAACCTCTCTAAGCCACAGCTTCTTCATCT							4875
TTAAAATAAGGATAAATAATCATTCCTTCCCTCAGAGCTCTTATGTGGATTAAACGAGATAATGTATATAAGTA							4950
CTTTAGCCTGGTACCTAGCACACAATAAGCATTCAATAAATATTAGTTAATATTAT							5014

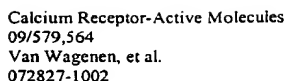
FIG. 48d.



77/85

10	20	30	40	50	60	70	
12345678901234567890123456789012345678901234567890123456789012345							
CAACAGGCACCTGGCTGCAGCCAGGAAGGACCGCACGCCCTTCGCGCAGGAGAGTGAAGGAGGGAGCTGTTTG							75
CCAGCACCGAGGTCTTGCAGCACAGGCAACGCTTGACCTGAGTCTTGCAGAATGAAAGGCATCACAGGAGGCCTC							150
TGCGATGATGTGGCTTCCAAAGACTCAAGGACCCACATTACAAGTCTGGATTGAGGAAGGCAGAAATGGAGAT							225
TCAAACACCACGTCTTCTATTATTTTATTAATCAATCTGTAGACATGTGTCCCACTGCAGGGAGTGAATGCTC							300
CAAGGGAGAAACTTCTGGGAGCCTCCAAACTCCTAGCTGTCTCATCCCTTGCCCTGGAGAGACGGCAGAACCATG							375
							Met
GCATTTTATAGCTGCTGCTGGGTCTCTTGGCACTCACCTGGCACACCTCTGCCTACGGGCCAGACCAGCGAGCC							450
AlaPheTyrSerCysCysTrpValLeuLeuAlaLeuThrTrpHisThrSerAlaTyrGlyProAspGlnArgAla							
CAAAAGAAGGGGACATTATCCTTGGGGGGCTCTTCTTCTATTCATTTTGGAGTAGCAGCTAAAGATCAAGATCTC							525
GlnLysLysGlyAspIleIleLeuGlyGlyLeuPheProIleHisPheGlyValAlaAlaLysAspGlnAspLeu							
AAATCAAGGCCGAGTCTGTGGAATGTATCAGGTATAATTTCCGTGGGTTTCGCTGGTTACAGGCTATGATATTT							600
LysSerArgProGluSerValGluCysIleArgTyrAsnPheArgGlyPheArgTrpLeuGlnAlaMetIlePhe							
GCCATAGAGGAGATAAACAGCAGCCAGCCCTTCTTCCCACTTGACGCTGGGATACAGGATATTTGACACTTGC							675
AlaIleGluGluIleAsnSerSerProAlaLeuLeuProAsnLeuThrLeuGlyTyrArgIlePheAspThrCys							
AACACCGTTTCTAAGGCCTTGAAGCCACCTGAGTTTTGTTGCTCAAAACAAAATTGATTCTTTGAACCTTGAT							750
AsnThrValSerLysAlaLeuGluAlaThrLeuSerPheValAlaGlnAsnLysIleAspSerLeuAsnLeuAsp							
GAGTTCTGCAACTGCTCAGAGCACATTCCCTCTACGATTGCTGTGGTGGGAGCAACTGGCTCAGGCGTCTCCAG							825
GluPheCysAsnCysSerGluHisIleProSerThrIleAlaValValGlyAlaThrGlySerGlyValSerThr							
GCAGTGGCAAATCTGCTGGGCTCTTCTACATTCCCCAGGTAGTTATGCCCTCTCCAGCAGACTCCTCAGCAAC							900
AlaValAlaAsnLeuLeuGlyLeuPheTyrIleProGlnValSerTyrAlaSerSerSerArgLeuLeuSerAsn							
AAGAATCAATTCAAGTCTTCTCCGAACCATCCCCAATGATGAGCACCAGGCCACTGCCATGGCAGACATCATC							975
LysAsnGlnPheLysSerPheLeuArgThrIleProAsnAspGluHisGlnAlaThrAlaMetAlaAspIleIle							
GAGTATTTCCGCTGGAAGTGGTGGGCACAATTGCAGCTGATGACGACTATGGGCGGCCGGGATTGAGAAATTC							1050
GluTyrPheArgTrpAsnTrpValGlyThrIleAlaAlaAspAspAspTyrGlyArgProGlyIleGluLysPhe							
CGAGAGGAAGCTGAGGAAAGGGATATCTGCATCGACTTCAGTGAATCATCTCCAGTACTCTGATGAGGAAGAG							1125
ArgGluGluAlaGluGluArgAspIleCysIleAspPheSerGluLeuIleSerGlnTyrSerAspGluGluGlu							
ATCCAGCATGTGGTAGAGGTGATTCAAAATTCACGGCCAAAGTCATCGTGGTTTCTCCAGTGGCCAGATCTT							1200
IleGlnHisValValGluValIleGlnAsnSerThrAlaLysValIleValValPheSerSerGlyProAspLeu							
GAGCCCTCATCAAGGAGATTGTCCGGCGCAATATCACGGGCAAGATCTGGCTGGCCAGCGAGGCCTGGGCCAGC							1275
GluProLeuIleLysGluIleValArgArgAsnIleThrGlyLysIleTrpLeuAlaSerGluAlaTrpAlaSer							
TCCTCCCTGATCGCCATGCCTCAGTACTTCCACGTGGTTGGCGGCACCATTTGGATTGCTCTGAAGGCTGGGCAG							1350
SerSerLeuIleAlaMetProGlnTyrPheHisValValGlyGlyThrIleGlyPheAlaLeuLysAlaGlyGln							

FIG. 49a.



10	20	30	40	50	60	70	
12345678901234567890123456789012345678901234567890123456789012345							
ATCCCAAGGCTTC	CGGGAATTC	CTGAAGAAGG	TCCATCC	CAGGAAGT	CTGTGCCA	AATGGTTT	GCCCAAGGAGTTT 1425
IleProGlyPheArgGluPheLeuLysLysValHisProArgLysSerValHisAsnGlyPheAlaLysGluPhe							
TGGGAAGAAACATTTAACTGCCACCTCCAAGAAGGTGCAAAAGGACCTTTACCTGTGGACACCTTTCTGAGAGGT							1500
TrpGluGluThrPheAsnCysHisLeuGlnGluGlyAlaLysGlyProLeuProValAspThrPheLeuArgGly							
CACGAAGAAAGTGGCGACAGGTTTAGCAACAGCTCGACAGCCTTCCGACCCTCTGTACAGGGGATGAGAACATC							1575
HisGluGluSerGlyAspArgPheSerAsnSerSerThrAlaPheArgProLeuCysThrGlyAspGluAsnIle							
AGCAGTGTGAGACCCCTTACATAGATTACACGCATTTACGGATATCCTACAATGTGTACTTAGCAGTCTACTCC							1650
SerSerValGluThrProTyrIleAspTyrThrHisLeuArgIleSerTyrAsnValTyrLeuAlaValTyrSer							
ATTGCCCACGCCTTGCAAGATATATATACCTGCTTACCTGGGAGAGGGCTCTTACC							1725
IleAlaHisAlaLeuGlnAspIleTyrThrCysLeuProGlyArgGlyLeuPheThrAsnGlySerCysAlaAsp							
ATCAAGAAAGTTGAGCGGTGGCAGGTCTCTGAAGCACCTACGGCATCTAAACTTTACAAACAATATGGGGGAGCAG							1800
IleLysLysValGluAlaTrpGlnValLeuLysHisLeuArgHisLeuAsnPheThrAsnAsnMetGlyGluGln							
GTGACCTTTGATGAGTGTGGTGACCTGGTGGGGAACCTATTCATCATCAACTGGCACCTCTCCCCAGAGGATGGC							1875
ValThrPheAspGluCysGlyAspLeuValGlyAsnTyrSerIleIleAsnTrpHisLeuSerProGluAspGly							
TCCATCGTGTTTAAGGAAGTCGGGTATTACAACGCTCTATGCCAAGAAGGGAGAAAGACTCTTCATCAACGAGGAG							1950
SerIleValPheLysGluValGlyTyrTyrAsnValTyrAlaLysLysGlyGluArgLeuPheIleAsnGluGlu							
AAAATCCTGTGAGTGGGTTCCTCCAGGAGGTCGCCCTTCTCCAACCTGCAGCCGAGACTGCCTGGCAGGGACCAGG							2025
LysIleLeuTrpSerGlyPheSerArgGluValProPheSerAsnCysSerArgAspCysLeuAlaGlyThrArg							
AAAGGGATCATTTGAGGGGGAGCCACCTGCTGCTTTGAGTGTGTGGAGTGTCTGATGGGGAGTATAGTGTATGAG							2100
LysGlyIleIleGluGlyGluProThrCysCysPheGluCysValGluCysProAspGlyGluTyrSerAspGlu							
ACAGATGCCAGTGCTCTGTAACAAGTGCCAGATGACTTCTGGTCCAATGAGAACCACACCTCCTGCATTGCCAAG							2175
ThrAspAlaSerAlaCysAsnLysCysProAspAspPheTrpSerAsnGluAsnHisThrSerCysIleAlaLys							
GAGATCGAGTTTCTGTCGTGACGGAGCCCTTTGGGATCGCACTCACCTCTTTGCCGTGCTGGGCATTTTCTCTG							2250
GluIleGluPheLeuSerTrpThrGluProPheGlyIleAlaLeuThrLeuPheAlaValLeuGlyIlePheLeu							
ACAGCCTTTGTGCTGGGTGTGTTTATCAAGTTCGCAACACACCCATTGTCAAGGCCACCAACCGAGAGCTCTCC							2325
ThrAlaPheValLeuGlyValPheIleLysPheArgAsnThrProIleValLysAlaThrAsnArgGluLeuSer							
TACCTCTCTCTTCTCTCCCTGCTCTGCTGCTTCTCCAGCTCCCTGTTCTTCATCGGGGAGCCCCAGGACTGGACG							2400
TyrLeuLeuLeuPheSerLeuLeuCysCysPheSerSerSerLeuPhePheIleGlyGluProGlnAspTrpThr							
TGCCGCCTGCGCCAGCCGGCCTTTGGCATCAGCTTCGTGCTCTGCATCTCATGCATCCTGGTGAAAACCAACCGT							2475
CysArgLeuArgGlnProAlaPheGlyIleSerPheValLeuCysIleSerCysIleLeuValLysThrAsnArg							
GTCCTCTCTGGTGTGTTGAGGCCAAGATCCCCACCAGCTTCCACCGCAAGTGGTGGGGGCTCAACCTGCAGTTCTCTG							2550
ValLeuLeuValPheGluAlaLysIleProThrSerPheHisArgLysTrpTrpGlyLeuAsnLeuGlnPheLeu							
CTGGTTTTTCTCTGCACCTTCATGCAGATTGTCACTGTGTGATCTGGCTCTACACCGCGCCCCCTCAAGCTAC							2625
LeuValPheLeuCysThrPheMetGlnIleValIleCysValIleTrpLeuTyrThrAlaProProSerSerTyr							
CGCAACCAGGAGCTGGAGGATGAGATCATCTTCATCAGTGCCACGAGGGCTCCCTCATGGCCCTGGGCTTCTCTG							2700
ArgAsnGlnGluLeuGluAspGluIleIlePheIleThrCysHisGluGlySerLeuMetAlaLeuGlyPheLeu							

FIG. 49b.

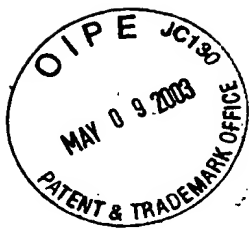


79/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
ATCGGCTACACCTGCCTGCTGGCTGCCATCTGCTTCTTCTTTCGCTTCAAGTCCCGAAGCTGCCGGAGAACTTC							2775
IleGlyTyrThrCysLeuLeuAlaAlaIleCysPhePhePheAlaPheLysSerArgLysLeuProGluAsnPhe							
AATGAAGCCAAGTTCATCACCTTCAGCATGCTCATCTTCTTCATCGTCTGGATCTCCTTCATTCCAGCCTATGCC							2850
AsnGluAlaLysPheIleThrPheSerMetLeuIlePhePheIleValTrpIleSerPheIleProAlaTyrAla							
AGCACCTATGGCAAGTTTGTCTCTGCGGTAGAGGTGATTGCCATCCTGGCAGCCAGCTTTGGCTTGCTGGCGTGC							2925
SerThrTyrGlyLysPheValSerAlaValGluValIleAlaIleLeuAlaAlaSerPheGlyLeuLeuAlaCys							
ATCTTCTTCAACAAGATCTACATCATTTCTTCAAGCCATCCCGCAACACCATCGAGGAGGTGCGTTGCAGCACC							3000
IlePhePheAsnLysIleTyrIleIleLeuPheLysProSerArgAsnThrIleGluGluValArgCysSerThr							
GCAGCTCACGCTTTCAAGGTGGCTGCCCCGGCCACGCTGCGCCGAGCAACGCTCTCCCGCAAGCGGTCCAGCAGC							3075
AlaAlaHisAlaPheLysValAlaAlaArgAlaThrLeuArgArgSerAsnValSerArgLysArgSerSerSer							
CTTGAGGCTCCACGGATCCACCCCTCTCTCCATCAGCAGCAAGAGCAACAGCGAAGACCCATTCCACAG							3150
LeuGlyGlySerThrGlySerThrProSerSerSerIleSerSerLysSerAsnSerGluAspProPheProGln							
CCCGAGAGGCAGAAGCAGCAGCAGCCGCTGGCCCTAACCCAGCAAGAGCAGCAGCAGCAGCCCTGACCCTCCCA							3225
ProGluArgGlnLysGlnGlnGlnProLeuAlaLeuThrGlnGlnGluGlnGlnGlnProLeuThrLeuPro							
CAGCAGCAACGATCTCAGCAGCAGCCAGATGCAAGCAGAAGGTCTCTTTGGCAGCGGCACGGTCACCTTCTCA							3300
GlnGlnGlnArgSerGlnGlnGlnProArgCysLysGlnLysValIlePheGlySerGlyThrValThrPheSer							
CTGAGCTTTGATGAGCCTCAGAAGAACGCCATGGCCACGGGAATTCTACGCACCAGAATCCCTGGAGGCCAG							3375
LeuSerPheAspGluProGlnLysAsnAlaMetAlaHisGlyAsnSerThrHisGlnAsnSerLeuGluAlaGln							
AAAAGCAGCGATACGCTGACCCGACACCAGCCATTACTCCGCTGCAGTGCAGGGAACGGACTTAGATCTGACC							3450
LysSerSerAspThrLeuThrArgHisGlnProLeuLeuProLeuGlnCysGlyGluThrAspLeuAspLeuThr							
GTCCAGGAAACAGGTCTGCAAGGACCTGTGGGTGGAGACCAGCGCCAGAGGTGGAGGACCCTGAAGAGTTGTCC							3525
ValGlnGluThrGlyLeuGlnGlyProValGlyGlyAspGlnArgProGluValGluAspProGluGluLeuSer							
CCAGCACTTGTAGTGTCCAGTTTCAGAGCTTTGTTCATCAGTGGTGGAGGCAGCACTGTTACAGAAAACGTAGTG							3600
ProAlaLeuValValSerSerSerGlnSerPheValIleSerGlyGlyGlySerThrValThrGluAsnValVal							
AATTCATAAAATGGAAGGAGAAGACTGGGCTAGGGAGAATGCAGAGAGTTTCTTGGGGTCCAGGGATGAGGAA							3675
AsnSer							
TCGCCCCAGACTCCTTCTCTCTGAGGAAGAAGGGATAATAGACACATCAAATGCCCGAATTTAGTCACACCATC							3750
TTAAATGACAGTGAATTGACCCATGTTCCCTTTAAAAAAAAAAAAAAAAAAGCGGCCGC							3809

FIG. 49c.

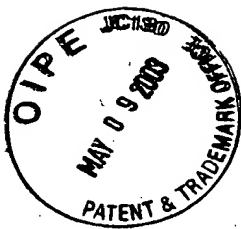
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80/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CGGGACTCTCCAGGCCGGCTCAGGCACCGGACTGTAGGTGTATTTGGAGGGATTGGAGGCTGGAGACCCAGGA							75
AGCACGCAGCGCGGAGCAGGCAAGGGCGGAGCCCCGGGCCCGCCAAGGTGGCCGTGAGAGGGTCTGCGGGGAG							150
GCAGTAGCTTGACCCAAGGCGACCAGGGAACCTTCAGACGGTAGCAGCCACTCAAACAAATTAACCTTGACATCGC							225
AAGCTGGGCGGGCTGGTACGACATCCTGACTTCAGCATCCAGCTGTTCCTGGGCAGACAGAGGGCCAACAGGTGT							300
TCCTGTGGAAGAAGCCAGGACAAGGACTCCAGAAAACATCTCGGGCAGCCTCTACATGATGTCACTTCTCAGGAC							375
TCGAGGACCAGCCACCTTACACCTCTACTACAGAGAAGGCAGAAATGGAGACCCAAAGGCCATCACTCTGTCTCT							450
GTCCTAACCACTCTGTAATCATGTCTCCCCACCAGAAGGTGTGAACCGCACCAGGGCCGTGGAGTTCTCGGGCT							525
CCCAATCCACTGACACCTTTACCTGTCCCCTGAAGAGAAGGCAACGCTATGGCATCGTACAGCTGCTGTTTGGCC							600
MetAlaSerTyrSerCysCysLeuAla							
CTATTGGCTCTTGCCCTGGCACTCCTCTGCCTATGGGCCTGACCAGCGAGCCCAAGAGAGGGGACATTATCCTA							675
LeuLeuAlaLeuAlaTrpHisSerSerAlaTyrGlyProAspGlnArgAlaGlnLysLysGlyAspIleIleLeu							
GGAGGTCTCTTTCTATCCATTTTGGAGTAGCAGCCAAAGATCAAGATCTGAAGTCAAGACCAGAGTCTGTGGAG							750
GlyGlyLeuPheProIleHisPheGlyValAlaAlaLysAspGlnAspLeuLysSerArgProGluSerValGlu							
TGCATTAGGTATAACTTCCGTGGATTCCGATGGTTACAAGCCATGATATTCCGCATAGAGGAGATAAACAGCAGC							825
CysIleArgTyrAsnPheArgGlyPheArgTrpLeuGlnAlaMetIlePheAlaIleGluGluIleAsnSerSer							
CCCTCCCTTCTTCCCAACATGACACTGGGATATAGGATATTTGACACCTGTAACACCGTCTCCAAGGCGCTGGAA							900
ProSerLeuLeuProAsnMetThrLeuGlyTyrArgIlePheAspThrCysAsnThrValSerLysAlaLeuGlu							
GCCACCTTGAGTTTGTGTGCCCAGAACAAAATCGATTCTTTGAACCTGGACGAGTTCTGCAACTGCTCTGAGCAC							975
AlaThrLeuSerPheValAlaGlnAsnLysIleAspSerLeuAsnLeuAspGluPheCysAsnCysSerGluHis							
ATCCCTTCGACCATTTGCCGTGGTGGGAGCCACCGGCTCCGGTGTCTCCACGGCGGTAGCCAACCTGCTGGGACTT							1050
IleProSerThrIleAlaValValGlyAlaThrGlySerGlyValSerThrAlaValAlaAsnLeuLeuGlyLeu							
TTCTACATCCCCAGGTGAGCTACGCCTCCTCCAGCAGGCTCCTCAGCAATAAGAACCAGTACAAATCCTTCCTC							1125
PheTyrIleProGlnValSerTyrAlaSerSerSerArgLeuLeuSerAsnLysAsnGlnTyrLysSerPheLeu							
CGCACCATTTCCCAATGACGAACACCAGGCAACCGCATGGCCGACATCATCGAGTACTTCCGCTGGAACCTGGGTG							1200
ArgThrIleProAsnAspGluHisGlnAlaThrAlaMetAlaAspIleIleGluTyrPheArgTrpAsnTrpVal							
GGCACAATTGAGCTGATGACGACTATGGCAGACCTGGCATTGAGAAGTTCCGAGAGGAAGCCGAAGAGAGGGAT							1275
GlyThrIleAlaAlaAspAspAspTyrGlyArgProGlyIleGluLysPheArgGluGluAlaGluGluArgAsp							
ATCTGCATTGATTTTAGCGAGCTCATCTCCAGTACTCTGACGAGGAAGAGATCCAGCAGGTGCTCGAAGTGATC							1350
IleCysIleAspPheSerGluLeuIleSerGlnTyrSerAspGluGluIleGlnGlnValValGluValIle							

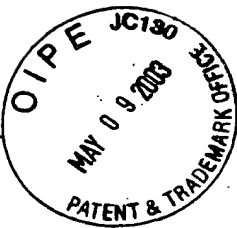
FIG. 50a.



81/85

10	20	30	40	50	60	70	
<u>12345678901234567890123456789012345678901234567890123456789012345</u>							
CAAACCTCTACGCCAAGGTCATTGTCGTTTTCTCCAGCGGCCCGACCTAGAACCTCTCATCAAGGAGATTGTG							1425
GlnAsnSerThrAlaLysValIleValValPheSerSerGlyProAspLeuGluProLeuIleLysGluIleVal							
CGGCGTAACATCACAGGCAGGATCTGGCTGGCTAGCGAGGCGCTGGGCCAGTTCTCGCTGATTGCTATGCCTGAG							1500
ArgArgAsnIleThrGlyArgIleTrpLeuAlaSerGluAlaTrpAlaSerSerSerLeuIleAlaMetProGlu							
TATTTCCATGTAGTCGGGGCACCATTGGGTTTCGGTCTGAAGGCTGGGCAGATTCCAGGCTTCAGAGAATTCCTA							1575
TyrPheHisValValGlyGlyThrIleGlyPheGlyLeuLysAlaGlyGlnIleProGlyPheArgGluPheLeu							
CAGAAAGTTTCATCCTAGGAAGTCTGTCCACAATGGTTTTGCCAAAGAGTTTTGGGAAGAACTTTAATTGCCAC							1650
GlnLysValHisProArgLysSerValHisAsnGlyPheAlaLysGluPheTrpGluGluThrPheAsnCysHis							
CTCCAAGAAGCGCAAAGGACCTTTACCTGTGGACACCTTCGTGAGAAGTCACGAAGAAGGTGGCAACAGGTTA							1725
LeuGlnGluGlyAlaLysGlyProLeuProValAspThrPheValArgSerHisGluGluGlyGlyAsnArgLeu							
CTCAATAGCTCTACTGCCTTCCGACCCCTCTGCACAGGGATGAGAACATCAACAGTGTGGAGACCCCTTACATG							1800
LeuAsnSerSerThrAlaPheArgProLeuCysThrGlyAspGluAsnIleAsnSerValGluThrProTyrMet							
GATTACGAACATTTACGGATATCCTACAATGTGTACTTAGCCGTCTACTCCATTGCCCATGCCCTACAAGATATA							1875
AspTyrGluHisLeuArgIleSerTyrAsnValTyrLeuAlaValTyrSerIleAlaHisAlaLeuGlnAspIle							
TACACCTGCTTACCCGGAAGAGGGCTTTTACCAACGGGTCCTGTGCAGACATCAAGAAGGTTGAGGCTGGCAG							1950
TyrThrCysLeuProGlyArgGlyLeuPheThrAsnGlySerCysAlaAspIleLysLysValGluAlaTrpGln							
GTCTTGAAGCACCTACGGCACCTGAACTTCACCAACAACATGGGGAGCAGGTGACCTTCGATGAGTGTGGTGAT							2025
ValLeuLysHisLeuArgHisLeuAsnPheThrAsnAsnMetGlyGluGlnValThrPheAspGluCysGlyAsp							
CTGGTGGGAACTATTCTATCATCAACTGGCACCTCTCCCCAGAGGACGGCTCCATTGTGTTCAAGGAAGTTGGG							2100
LeuValGlyAsnTyrSerIleIleAsnTrpHisLeuSerProGluAspGlySerIleValPheLysGluValGly							
TACTACAATGTGTATGCCAAGAAGGGAGAAAGACTCTTCATCAATGAGGAGAAGATCTGTGGAGTGGGTCTCC							2175
TyrTyrAsnValTyrAlaLysLysGlyGluArgLeuPheIleAsnGluGluLysIleLeuTrpSerGlyPheSer							
AGAGAGGTGCCTTTCTCCAATTGCAGCCGGGACTGTGAGGCAGGGACCAGGAAGGGGATCATCGAGGGAGAGCCC							2250
ArgGluValProPheSerAsnCysSerArgAspCysGlnAlaGlyThrArgLysGlyIleIleGluGlyGluPro							
ACCTGCTGCTTTGAGTGTGTGGAGTGTCTGATGGAGAGTACAGTGGAGAGACAGATGCCAGTGCCTGTGACAAG							2325
ThrCysCysPheGluCysValGluCysProAspGlyGluTyrSerGlyGluThrAspAlaSerAlaCysAspLys							
TGCCCGGATGACTTCTGGTCCAATGAGAACCACACTTCTTGCATTGCCAAGGAGATTGAGTTTCTGGCGTGGACC							2400
CysProAspAspPheTrpSerAsnGluAsnHisThrSerCysIleAlaLysGluIleGluPheLeuAlaTrpThr							
GAGCCCTTTGGAATCGCTCTCACTCTCTTTGGGCTGCTGGGCATTTTCTGACCGCCTTTGTGCTGGGTCTCTTC							2475
GluProPheGlyIleAlaLeuThrLeuPheAlaValLeuGlyIlePheLeuThrAlaPheValLeuGlyValPhe							
ATCAAGTTCCGAAACACACCTATCGTCAAGGCCACCAACCGAGAACTGTCCTACCTCCTGCTCTTCTCCCTACTC							2550
IleLysPheArgAsnThrProIleValLysAlaThrAsnArgGluLeuSerTyrLeuLeuLeuPheSerLeuLeu							
TGCTGCTTCTCCAGCTCCTTGTCTTCATTGGGGAGCCCCAGGACTGGACGTGCCGCTGCGACAGCCTGCTTTC							2625
CysCysPheSerSerSerLeuPhePheIleGlyGluProGlnAspTrpThrCysArgLeuArgGlnProAlaPhe							
GGCATCAGCTTTGTGCTCTGTATCTCGTGATCTTGGTGAAGACCAATCGCGTCTCCTGGTATTTGAAGCCAAG							2700
GlyIleSerPheValLeuCysIleSerCysIleLeuValLysThrAsnArgValLeuLeuValPheGluAlaLys							

FIG. 50b.

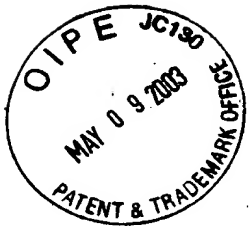


82/85

10	20	30	40	50	60	70	
12345678901234567890123456789012345678901234567890123456789012345							
ATACCCACCAGCTTCCACCGAAGTGGTGGGGCTCAACCTGCAGTTCCTGCTGGTTTCTCTGCACCTTCATG							2775
IleProThrSerPheHisArgLysTrpTrpGlyLeuAsnLeuGlnPheLeuLeuValPheLeuCysThrPheMet							
CAGATCCTCATCTGCATCATCTGGCTCTACACGGCGCCCCCTCTAGCTACCGCAACCATGAGCTGGAAGACGAA							2850
GlnIleLeuIleCysIleIleTrpLeuTyrThrAlaProProSerSerTyrArgAsnHisGluLeuGluAspGlu							
ATCATCTTCATCAGTGCCATGAGGGCTCACTCATGGCACTTGGCTCCCTGATCGGCTATACCTGCCTGCTGGCT							2925
IleIlePheIleThrCysHisGluGlySerLeuMetAlaLeuGlySerLeuIleGlyTyrThrCysLeuLeuAla							
GCCATCTGCTTCTTCTTTCGCTTCAAGTCCAGGAAGTTACCAGAGAACTTCAACGAAGCCAAGTTCATTACCTTC							3000
AlaIleCysPhePhePheAlaPheLysSerArgLysLeuProGluAsnPheAsnGluAlaLysPheIleThrPhe							
AGCATGCTCATCTTCTTCATCGTCTGGATCTCCTTCATTCCAGCCTATGCCAGCACCTACGGCAAGTTTGTCTCT							3075
SerMetLeuIlePhePheIleValTrpIleSerPheIleProAlaTyrAlaSerThrTyrGlyLysPheValSer							
GCCGTAGAGGTGATCGCCATTTCGGCAGCCAGCTTTGGCTTACTAGCCTGCATCTTCTTCAACAAGGTCTACATT							3150
AlaValGluValIleAlaIleLeuAlaAlaSerPheGlyLeuLeuAlaCysIlePhePheAsnLysValTyrIle							
ATCCTCTTCAAGCCTTCCCGAACACCATGAGGAAGTCCGCTCCAGCACCGCAGCACATGCTTTCAAAGTAGCA							3225
IleLeuPheLysProSerArgAsnThrIleGluGluValArgSerSerThrAlaAlaHisAlaPheLysValAla							
GCCCGCGCCACTCTACGCCGTCCCAACATCTCCCGAAGCGGTCCAGCAGCCTTGGAGGCTCCACCGCTCCATT							3300
AlaArgAlaThrLeuArgArgProAsnIleSerArgLysArgSerSerSerLeuGlyGlySerThrGlySerIle							
CCCTCCTCCTCCATCAGCAGCAAAAGCAACAGCGAAGACCGGTTCCCGCAGCCAGAGAGGCAGAAGCAACAGCAA							3375
ProSerSerSerIleSerSerLysSerAsnSerGluAspArgPheProGlnProGluArgGlnLysGlnGlnGln							
CCGCTGTCCCTGACCCAGCAAGAACAGCAGCAGCAGCCCTGACCCTCCACCCACAGCAACAGCAGCAGCCACAG							3450
ProLeuSerLeuThrGlnGlnGluGlnGlnGlnGlnProLeuThrLeuHisProGlnGlnGlnGlnGlnProGln							
CAGCCGAGATGCAAAACAGAAAGGTTCATCTTCGGCAGTGGTACGGTCACCTTCTCTCTGAGTTTGTACGAGCCTCAG							3525
GlnProArgCysLysGlnLysValIlePheGlySerGlyThrValThrPheSerLeuSerPheAspGluProGln							
AAGAATGCCATGGCCACAGGAACCTCATGCGTCAGAACTCCCTGGAGGCCAGAGGAGCAACGACACCTTGGGC							3600
LysAsnAlaMetAlaHisArgAsnSerMetArgGlnAsnSerLeuGluAlaGlnArgSerAsnAspThrLeuGly							
AGACACCAGGCCCTGCTTCCCTACAGTGTGCAGATGCGGACTCAGAAATGACCATTTCAGGAACGGGCCTGCAA							3675
ArgHisGlnAlaLeuLeuProLeuGlnCysAlaAspAlaAspSerGluMetThrIleGlnGluThrGlyLeuGln							
GGGCCCATGGTGGGGACCACCAGCCAGAAATGAAAGCTCAGATGAAATGTCCCCAGCGCTGGTCATGTCCACC							3750
GlyProMetValGlyAspHisGlnProGluMetGluSerSerAspGluMetSerProAlaLeuValMetSerThr							
TCTCGGAGCTTCGTTCATTAGTGGTGGAGGTAGCTCTGTGACGGAAAACGTATTACACTCCTAATGGAGGGAAAGG							3825
SerArgSerPheValIleSerGlyGlyGlySerSerValThrGluAsnValLeuHisSer							
CTATCCAGTTGAGAGGTTTTTCTTAGAGCCCTGAGCAAAAGGATGGGTCTTCTTCTTCTTCCAGGAAGCCAGGG							3900
AGAGTAGGTACGTCAAAGCCTGTACTCAGTTGCACTGCTTGAATGACAGTGAAGTACTGGTGTGCTCTTTAGA							3975
GTTAAAGAAGAGCCATGTTTTGGGGTCGTTTCCAGAGCTCAGTATCACACCTGGGTTTGCTGAAGTCTTTTCC							4050

FIG. 50c.

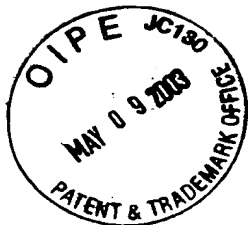
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83/85

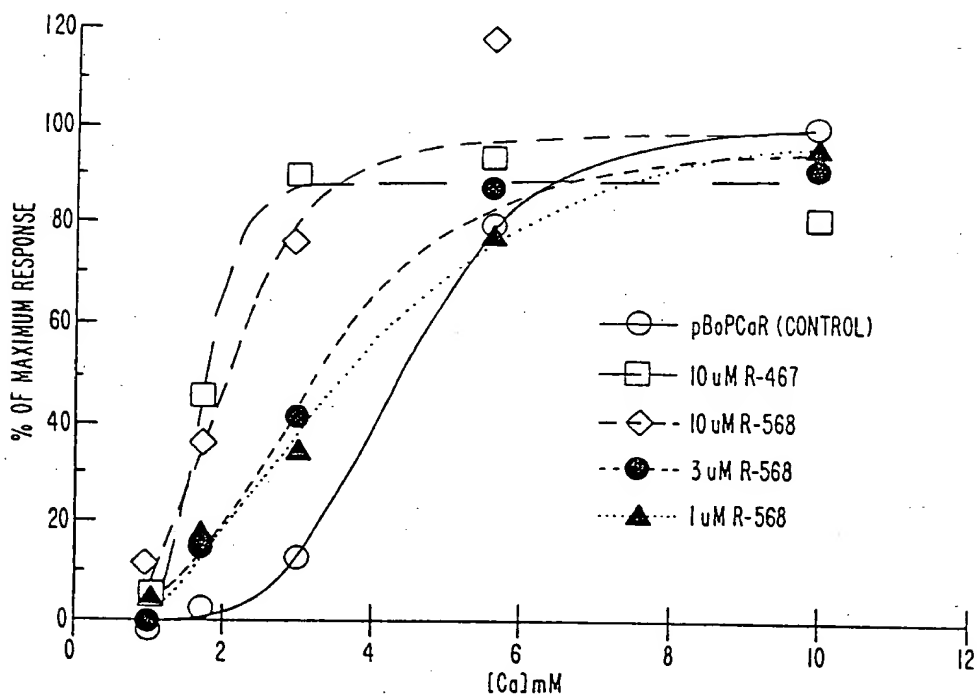
10	20	30	40	50	60	70
<hr/>						
1234567890123456789012345678901234567890123456789012345						
<hr/>						
TCTGCTCTATCCACCATCATGTTCTGAGACGAAAGCAAGGCTCTAAGCTAACCCTCTGCTTCCCTCAAAAAAAAA						
4125						
<hr/>						
AAAAAA						
4131						

FIG. 50d.



84/85

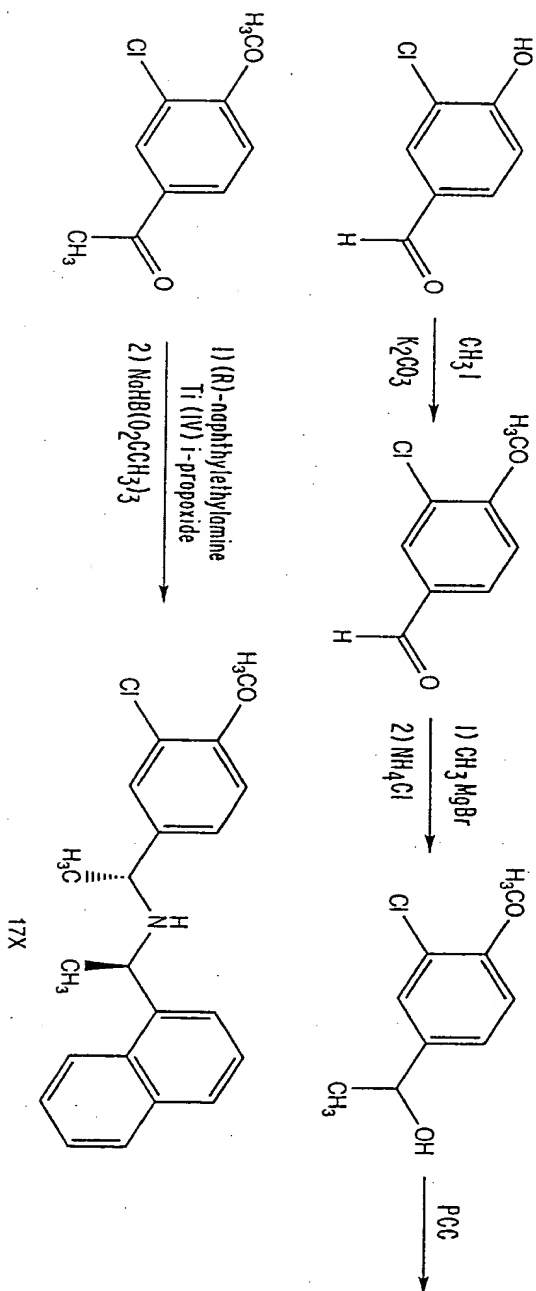
FIG. 51.



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